

MacWEEK

01.18.93 Volume 7 Number 3 THE NEWSWEEKLY FOR MACINTOSH MANAGERS

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NetWare 4 directories off limits till AOCE ships

Novell to supply Mac-access software

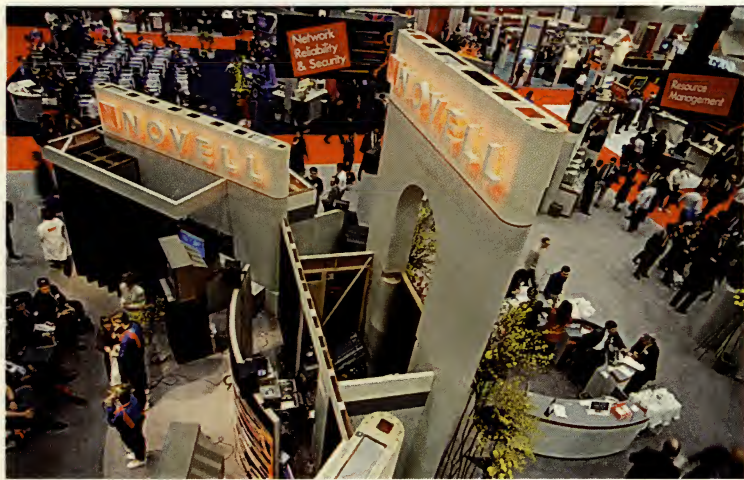
By Mitch Ratcliffe and April Streeter

Boston — The Mac won't benefit much in the short run when Novell Inc. ships NetWare 4.0 this March, but once Apple releases its Apple Open Collaboration Environment, Mac clients on the network operat-

ing system will be able to take full advantage of Version 4.0's new directory and security features.

The forthcoming NetWare update will provide distributed directory services for users of the popular network OS. The database directory, or bindery, in NetWare 3.11 and previous versions forces users to separately log onto each server they wish to browse. With NetWare 4.0, just

See NetWare, Page 119



RICK FRIEDMAN/BLACK STAR

Mac users will have to wait until later in the year when Apple ships its Open Collaboration Environment to enjoy the full benefits of NetWare 4.0, which Novell displayed at NetWorld last week. For more news from the show, see stories on pages 4 and 24.

Radius to launch eight-Rocket box running Mac code

By Carolyn Said

San Jose, Calif. — Radius Inc. reportedly is harnessing the multiprocessing and multitasking power of its Rocket accelerators to create a high-powered Mac-compatible server for pre-press and multimedia users.

Code-named SkyLab, the "media server" will consist of eight 50-MHz 68040 Rocket accelerators in a Radius-designed box, sources said. In all, the system is expected to deliver up to 300 mips of processing power.

The server will depend on Mac ROM code Radius licensed from Apple, sources said. It can be launched only from a Mac networked to it; once launched, it can run out-of-the-box Mac software over the network.

Radius declined to comment.

Because SkyLab was designed specifically to be a server, sources said, it won't be encumbered by elements of the Mac architecture that hinder server performance, such as a slow bus.

Users will be able to plug in high-performance storage systems from third parties, including RAID5 (redundant array of inexpensive disks) and optical drives. Client

See Radius, Page 120

Third-party extension to bring pen to Mac OS

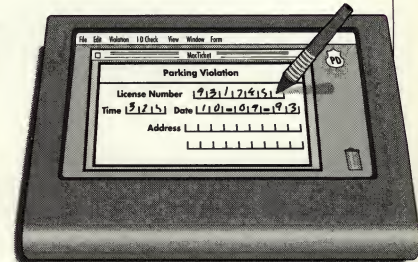
Apple shows prototype based on Duo design

By Carolyn Said and Raines Cohen

San Francisco — Pen-based computing, an innovation so far available only on other platforms, may soon reach the Mac.

Communication Intelligence Corp., the developer of a pen-input system that Apple markets in Japan, next week will announce PenMac, an extension to the Mac operating system that will make it possible to use a pen with off-the-shelf Macs, tablets and Mac applications.

Meanwhile, Apple in recent months has quietly shown corporate customers a prototype pen-based Mac using Duo-like hard-



NEVIN BERGER

Apple has shown some users a PowerBook Duo-like pen-based Mac.

ware, according to sources.

CIC's PenMac software will be introduced at PenExpo here. The product is scheduled for release by mid-year at less than \$100, according to company CEO James Dao. He said several third-party tablet manufacturers, including Kurta

See Pen Mac, Page 120

Developers to get AppleScript soon

By Raines Cohen

San Francisco — AppleScript, Apple's long-awaited user-scripting system for the Mac, is nearing release. The company last month shipped a beta version to developers. This month it gave public demonstrations at Macworld Expo and revealed new details about how it will market the software: first, by May, to developers, then in a different form to in-house program-

mers and only later to end users.

The AppleScript language and the larger Open Scripting Architecture encompassing it are designed to be flexible and extensible. Users worldwide will be able to write scripts in AppleScript dialects based on their native language and grammar; scripts are stored in a compiled, coded format, making it possible to edit them in any dialect.

See AppleScript, Page 119

Apple holding to Newton price, ship plans

By Stephen Howard

Las Vegas — Despite reports of delays and planned price hikes, Apple this month held to its line that it will deliver a Newton for less than \$1,000 by this summer.

To prove it, the company and Sharp Corp. of Osaka, Japan, showed off at the Winter Consumer Electronics Show here what they said was an "alpha sample of a first

generation of Newton products."

In a progress report, Gaston Bastiaens, vice president and general manager of Apple's Personal Interactive Electronics (PIE) division, reiterated the basics of the company's Newton announcement last May, while adding a few refinements.

Business users, rather than consumers, will be the likely customers for Apple's personal digital assis-

stants (PDAs). People who run their own businesses or work for large corporations "will be the first to grasp the importance" of PDAs, Bastiaens said. He also said that third-party developers were writing "a lot of professional business-support" software for the device.

Steve Capps, chief software architect of the Newton, claimed Apple had added cursive handwriting recognition to the device, although his accompanying demonstration attempted only one word each of cursive and mixed cursive-printing styles.

Communications will be a cornerstone of the Newton family, although Apple was reluctant to name the spe-

See Newton, Page 119

AppleScript's three forms on the desktop



► **Compiled scripts** can be run by an AppleScript editor or applications that support direct script execution.



► **Applets** are tiny double-clickable applications that run the script they contain and then quit, or run in the background as an agent.

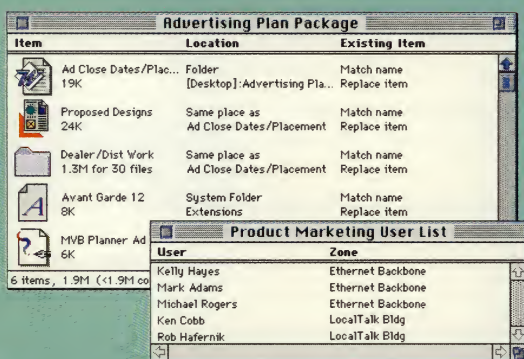


► **Droplets** are drag-and-drop applets that can process files, folders or disks dropped on them in the Finder.

Source: Apple

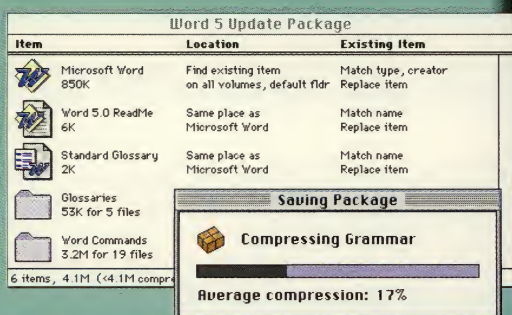
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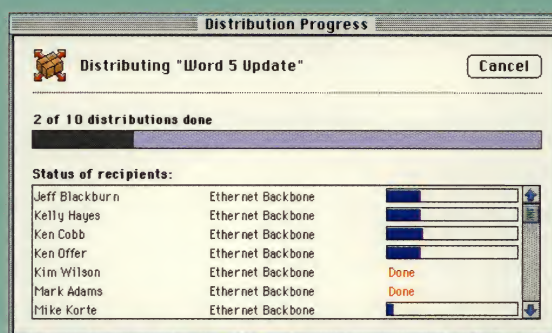
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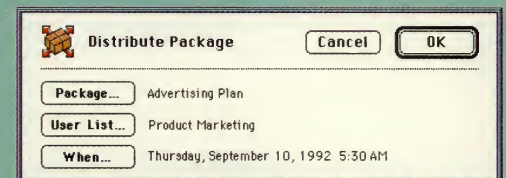
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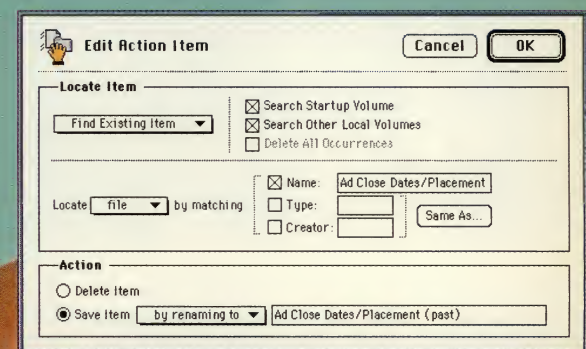
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Apple names Nagel to replace Heinen as top software exec

By Jon Swartz

Cupertino, Calif. — It didn't take Apple long to find a replacement for Roger Heinen, its top operating-system executive who defected to Microsoft Corp. earlier this month.

That's because the company didn't have to look far. Last week it named David Nagel, senior vice president of Apple's Advanced Technology Group (ATG), to succeed Heinen as head of the Macintosh Software Architecture Division (MSAD).

"In such a dynamic, changing industry, we needed to make an immediate change," said Nagel, who was approached by Michael H. Spindler, Apple's president and chief operating officer, the day after Heinen resigned.

Nagel, 47, will serve as senior vice president and general manager for both MSAD and ATG until a successor is named to head ATG, which will be within two months, he



David Nagel succeeds Roger Heinen as Apple's MSAD head.

said. Nagel will report to Spindler.

"By placing both our software and advanced research activities under David, we believe we will enhance our efforts to integrate state-of-the-art technologies into our software platform," Spindler said in a statement.

Nagel said he has no plans to change MSAD's long-term strategy but will review several of the group's policies, including its decision to charge for system software.

"The basic decision is correct. We can't continue to underwrite complex development by giving away software," he said. "At the same time, the specifics of that policy are under continuous review."

Heinen left Apple two days before the start of San Francisco's Macworld Expo to become vice president of database and development tools at Microsoft in Redmond, Wash. He offered no reason for his departure. □

Alki does Microsoft Word one better with new MasterWord enhancements

By Lisa Picarille and Henry Norr

Seattle — A year ago, when Alki Software Corp. introduced its MasterWord enhancements for Microsoft Word, Microsoft Corp. liked what it saw so much that it licensed much of the package for inclusion in Word 5.1. But this month Alki returned with an updated version that adds still more power and convenience to the popular word processor.

The new MasterWord, priced at \$99.95 retail or \$59.95 direct from Alki and free to current owners, works with both Word 5.0 and 5.1.

Key features include:

► **Tool bar enhancements.** While Word 5.1 and the original MasterWord offer one iconic tool bar, the new Alki plug-in module supports multiple bars. The program ships with 11 preconfigured bars; users can modify those or add new ones. A special tool bar called Frequent configures itself automatically based on the tasks a user performs most frequently. Users can add buttons that enter up to 255 characters of text or trigger macros created with other utilities.

MasterWord also makes tool bar customization easier by letting users

create or edit icons and add options to bars by dragging and dropping commands.

► **Envelopes.** The new MasterWord improves on Word 5.1's Alki-developed envelope-printing feature by letting users add Postnet bar codes, pictures and messages and preview envelopes before printing.

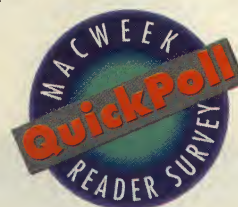
► **Other enhancements.** The new Alki plug-in lets users select the character and indent for Word 5.1's automatic bulleting feature. Like the original MasterWord, it can cascade or tile windows automatically and simplify table formatting via a gallery of table types.

The MasterWord package also includes enhanced Help for Word 5.0 and 5.1 and three desk accessories: a calculator with Excel-like functions, an electronic proportion wheel, and a file-finding and text-search tool with numerous options, including grep. The text search DA, now called Alki Seek 2.1, also is available separately for \$39.95.

Alki Software Corp. is at 300 Queen Anne Ave. N., Suite 410, Seattle, Wash. 98109. Phone (800) 669-9673 or (206) 286-2600; fax (206) 286-2785. □

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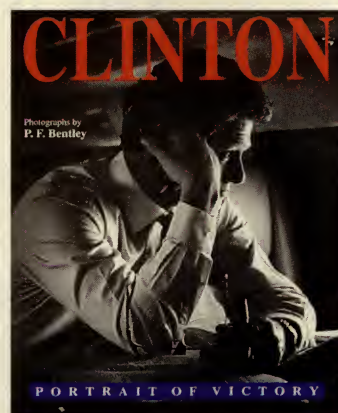


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NetWorld 93 stress was on speed

By Mitch Ratcliffe and April Streeter

Boston — Network managers heard about speed, routing and messaging at NetWorld 93 held here last week.

Apple did not have a booth but used the show as a venue to release the Apple Internet Router, which it said will reduce the routing-table

cacophony that can jam large multizone and multiprotocol networks (see story, Page 24).

CE Software Inc. announced its client software for Novell Inc.'s Message Handling Service (MHS) mail system. The West Des Moines, Iowa-based company said it will ship the first mail client it has developed for non-

QuickMail servers by the end of this quarter.

QuickMail for MHS provides the same user interface as the standard QuickMail client. It will let users send up to 62 enclosures with a message, compared to 16 enclosures for a QuickMail message sent through a Mac server. Mail log and Unsend features will not be included because Novell's MHS server does not support them.

Users will be able to log onto their MHS mail accounts from any QuickMail for MHS client

on a network. The MHS server can download users' preferences to the client machine, allowing them to view their mail in the same way, regardless of where they log on from. Pricing for the MHS client has not been determined.

The majority of the products at the show promised improved network throughput.

Router and hub manufacturers touted Asynchronous Transfer Mode (ATM). Retix Inc., Fibermux Corp. and Cisco Systems Inc., among others, said they will ship router and hub cards for the 1.5-Mbps networking scheme later this year and in early 1994. With the proper cards in place, the companies' hubs will be able to route AppleTalk over many high-speed media, including Ethernet, token ring, ATM and Fiber Distributed Data Interface (FDDI).

ATM is a cell-switching scheme that is transparent to network protocols. It breaks down Ethernet, token-ring and FDDI packets for transmission over several different types of physical connections. Most networking companies have not determined which cabling they will support in their ATM interfaces.

"ATM is the next Holy Grail," said Jeffrey Paine, manager of corporate marketing at Menlo Park, Calif.-based Cisco Systems. "It's the approach that doesn't have any obvious technical drawbacks, and the time to get into ATM is now, not when it's hot."

But Fibermux, located in Chatsworth, Calif., doesn't see users rushing to ATM. "Until managers have gone through the steps to utilize all the bandwidth in Ethernet, we can't say ATM is a solution," said Mike Zeile, Fibermux's ATM product line manager. He estimated that ATM won't reach the desktop for two or three more years.

However, Cabletron Systems Inc. of Rochester, N.H., is betting on the need for high-bandwidth network services to support imaging and video applications on the desktop. The company said it plans to ship ATM adapter cards for the Macintosh NuBus-90 and PowerPC buses next year. □

Alert! finds, fixes conflicts

By Henry Norr

Glendale, Calif. — Maxa Corp. this month announced a new utility designed not only to diagnose software conflicts but also to resolve them when possible.

Called Alert!, the program will be based on a database of compatibility information. But in addition to reporting on problems — a capability already offered by such programs as Teknosys Inc.'s Help! — Alert! will attempt to solve them by turning off or reordering extensions, offering to shut off 32-bit addressing and boosting application memory allocations.

The program also will identify duplicate or improperly installed software. When it finds an outdated version, it will display the publisher's phone number. Under System 7 the program will be able to diagnose and resolve problems across a network or even via modem, allowing consultants, for example, to work remotely.

Alert!, slated to ship in March for \$179, was written by Gary Amstutz, one of the principal developers of Symantec Corp.'s Norton Utilities for Macintosh.

Maxa Corp. is at 116 N. Maryland Ave., Suite 100, Glendale, Calif. 91206. Phone (818) 543-1300; fax (818) 543-0104. □

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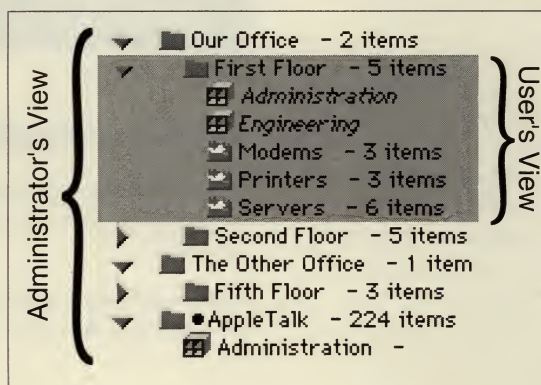
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Pinnacle offers desktop CD-ROM recording for \$4,000

By Kirsten L. Parkinson

Irvine, Calif. — Pinnacle Micro this month will break new price barriers in CD-ROM authoring with a desktop mastering system priced at less than \$4,000.

The company's new RCD-202 recordable CD-ROM drive is slated to ship late this month for \$3,995, less than half the cost of an Optical Media International Inc. recording system that was previously the least expensive available (see MacWEEK, Sept. 14, 1992). Only a few years ago such recording systems cost \$40,000 or more.

The half-height SCSI device will take about an hour to record 580 Mbytes, the maximum capacity of each disc, the company said. It can record data in several formats, including Apple's hierarchical file system, International Standards Organization 9660, AIFF (Audio Interchange File Format) and Digidesign

Inc.'s Sound Designer II formats; the audio formats can be played on consumer CD players. The system provides multisession support, enabling users to record additional data on discs already mastered.

The unit measures 9.6 by 10.38 by 2.1 inches and weighs about 7 pounds.

According to the company, the RCD-202 can be used as a reading as well as a recording system. It will offer an average access time of 300 milliseconds and transfer rates of 300 Kbytes per second for nonaudio data and 150 Kbytes per second for audio data. Pinnacle declined to identify the mechanism's manufacturer.

The price of the RCD-202 does not include blank discs. They are available separately for \$39.

The drive will ship with a one-year warranty, which includes free firmware upgrades. Internal versions for Macs with bays for removable-media drives are due later this year.

Pinnacle Micro is at 19 Technology, Irvine, Calif. 92718. Phone (714) 727-3300 or (800) 553-7070; fax (714) 727-1913. □

LaserMaster printer can output tabloid pages at 1,200 dpi

By Neil McManus

Eden Prairie, Minn. — LaserMaster Corp. has released a new RISC-based PostScript-compatible printer capable of outputting tabloid pages at 1,200 dpi.

The LaserMaster 1200XL Personal Typesetter, priced at \$6,995, features an 8-page-per-minute engine from Toshiba America Corp. The printer is based on a proprietary 50-MHz RISC processor that resides on a NuBus card in a host Mac.

Macs networked through LocalTalk or EtherTalk can connect to the printer through the host Mac, which is slowed only momentarily by incoming print jobs, LaserMaster said.

The LaserMaster printer automatically switches between HP PCL 4 emulation and LaserMaster's version of Microsoft Corp.'s TrueImage PostScript-compatible interpreter. It comes with 135 Type 1 fonts and LaserMaster's TurboGray gray-scale enhancement software.

The printer achieves its 1,200-dpi effective resolution through LaserMaster's proprietary TurboRes software, which tricks the printer into printing partial pixels. Users also can choose to print in the printer's faster native 600-dpi mode.

The 1200XL Personal Typesetter ships with a 250-sheet paper cassette that supports a variety of paper sizes, including letter, legal, tabloid, A4, A3 and B5. LaserMaster sells a second 250-sheet cassette for \$549, as well as a multipurpose tray for envelopes and unusual paper sizes for \$449.

LaserMaster also offers The Unity 1200XL for \$9,995. It shares most of the features of the LaserMaster 1200XL Personal Typesetter but adds a built-in RISC processor, 21 Mbytes of RAM, a 20-Mbyte internal SCSI hard disk and LocalTalk.

LaserMaster Corp. is at 6900 Shady Oak Road, Eden Prairie, Minn. 55344. Phone (612) 944-9457; fax (612) 943-3469. □

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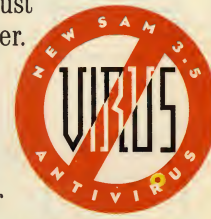
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Frontier to build interfaces in Iowa

UserLand also shows component version

By Raines Cohen

San Francisco — UserLand Software Inc. used a private suite at Macworld Expo this month to show that the Frontier is still wide open, even with AppleScript on the horizon.

The company unveiled both a new interface-building tool, code-named Iowa, and a version of its Frontier development environment that works with most AppleScript editors.

Both were characterized as "technology demonstrations," not product announcements; no ship dates or prices were set.

The company showed:

► **Iowa.** This application will

let users draw interface components and dialog box contents on "cards." Users will be able to link the components to scripts written in UserTalk, Frontier's scripting language.

Cards will be able to store and retrieve information from Frontier's object database and display their own menu bars through UserLand's menu-sharing protocol.

UserLand has not yet determined whether to include a full or runtime version of Frontier with Iowa. It will be aimed at system integrators and developers, rather than end users.

► **Frontier component.** The company has adapted a version of its Frontier 2.0 development environment to work as a component in Apple's Open Scripting Architecture.

When the component is installed in the Extensions folder within the System folder, it will add a menu to Apple and third-party script editors, giving users the choice of UserTalk or AppleScript when writing scripts.

The system automatically will use the Frontier engine to compile and run scripts written in UserTalk.

The feat is possible in part because Frontier 2.0 supports the Apple-Events Object Model, a set of standards dictating how applications can talk to one another in a language-independent fashion.

UserLand Software Inc. is at 400 Seaport Court, Redwood City, Calif. 94063. Phone (415) 369-6600; fax (415) 369-6618. □

Iowa, a new user-interface construction tool from UserLand Software, lets users build mini-applications, called cards, that can interact with the Frontier object database.



Kaetron updates TopDown Flowcharter; Version 3.5 opens multiple documents

Windows Viewer opens org, flowcharts

By Lisa Picarille

Houston — Kaetron Software Corp. this month shipped an update of TopDown Flowcharter and announced a new product to let Windows users view files created with TopDown Flowcharter or the company's OrgChart Express program.

► **TopDown Flowcharter 3.5**, a tool for documenting system design, procedures and the flow of information, now allows users to open multiple documents, use publish and subscribe, include headers and footers in documents, and add automatic page numbering.

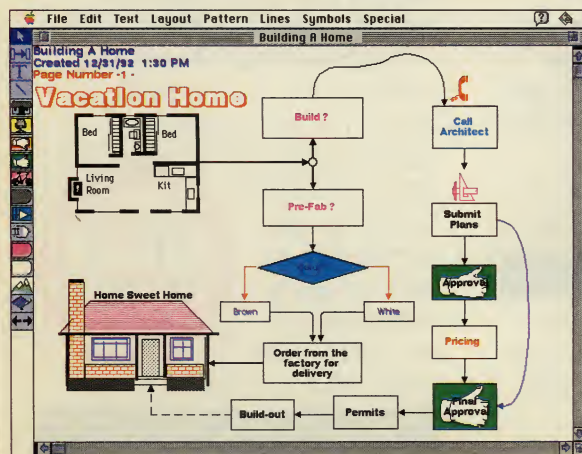
The \$345 program also now lets

users add additional relationship details to flowcharts with three new line types — hair lines, curved lines and dashed lines.

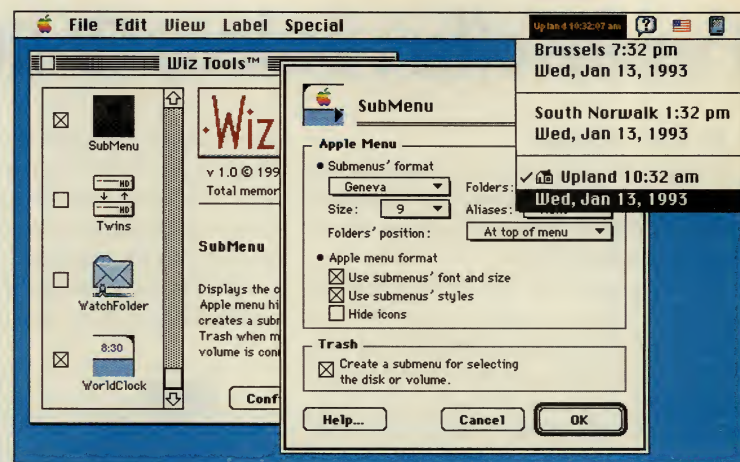
Users who purchased the previous version of TopDown Flowcharter after July 1, 1992, can upgrade free; others pay \$49.

► **TopDown Viewer for Windows**, a \$69 application due later this month, will let Windows users open, view and print files created on the Mac with TopDown Flowcharter or OrgChart Express. The \$99 organizational-chart application combines employee data management and sophisticated charting features.

Kaetron Software is at 12777 Jones Road, Suite 445, Houston, Texas 77070. Phone (713) 890-3434 or (800) 938-8900; fax (713) 890-6767. □



The latest version of TopDown Flowcharter includes a variety of new line types to help illustrate relationships.



Wiz Tools modifies the Apple menu, letting users select its font and making folders appear as hierarchical menus. It places a clock in the menu bar showing times in various locales.

ASD Software's Wiz Tools package teaches System 7 nine new tricks

By Robert Hess

Montclair, Calif. — Like a magician's long-lasting scarf trick, the stream of System 7 utilities continues with the introduction of Wiz Tools by ASD Software Inc.

The \$129 collection of control panels, due later this month, includes:

► **FinderTools**, which can modify Finder-menu command keys, change application-document links, allow hot-key switching between applications and make it possible to use small icons on the desktop.

► **Twins**, which acts as both a file-synchronization and backup utility, permitting both manual and scheduled, unattended backups.

► **PowerBook Utilities**, which offers battery-level indicators, cursor animation and hot keys that toggle AppleTalk and put the system to sleep.

► **WatchFolder**, which alerts the owner when a folder on a shared volume is modified. This feature could be used for a rudimentary form of electronic mail, the company said.

► **Keystroke Recorder**, which remembers all text entered on the keyboard in an encryptable text file.

► **ColorSwitcher**, which toggles between two preset bit depths.

► **WorldClock**, which places a clock in the menu bar and displays the time in other user-specified locations in a menu.

► **Launcher**, which attaches hot keys to applications and documents. It can be used while the Finder copies.

► **SubMenu**, which displays the Apple menu's contents hierarchically.

ASD Software Inc. is at 4650 Arrow Highway, Suite E-6, Montclair, Calif. 91763. Phone (909) 624-2594; fax (909) 624-9574. □

MD MARS gets streamlined, goes cross-platform

By Henry Norr

Silver Spring, Md. — Micro Dynamics Ltd. this month announced major enhancements to its document-imaging system, including revamped software for Mac users and a new Oracle-based cross-platform version.

► **MD MARS 3.0 for the Mac**, due later this quarter, will feature a new program called Workstation 3.0, which combines all functions except scanning into one application.

Workstation also will provide a streamlined interface and a number of new options. Users will be able to annotate images with text or audio comments and create and store new versions of documents with drawing overlays or with sensitive portions of the original blacked out. In addition, the new release will let users store, retrieve and play QuickTime movies.

Pricing for MD MARS will start

at \$30,000 for a single-user version, including a Quadra 700, optical drive, Fujitsu scanner and LaserWriter. Network versions will start at \$70,000.

► **MARS Viking**, the new cross-platform version, also is slated for release by March. It will include a Directory Server, or document database, built with Oracle Corp. software, which can run on up to 80 Unix platforms. The Viking system also will add support for multiple optical servers, making the system's capacity virtually unlimited.

In addition to Workstation 3.0 for the Mac, the Viking package will incorporate a new application called Retrieve for Windows, which will give users of the Microsoft environment the same extensive retrieval options available to Mac users.

The base price for MARS Viking

will be \$39,995; upgrades from MD MARS to Viking will be \$15,000.

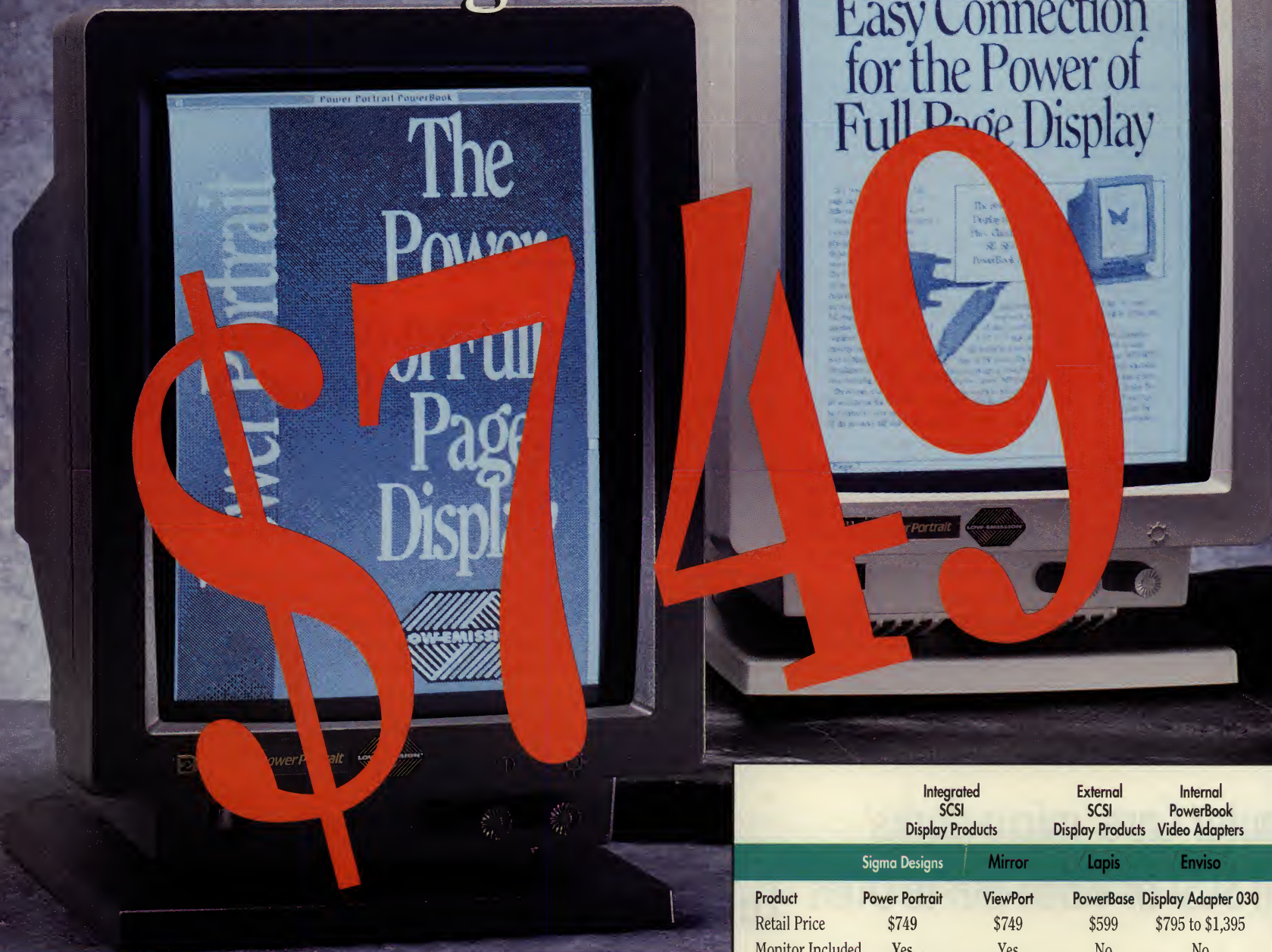
Micro Dynamics Ltd. is at 8555 16th St., Seventh Floor, Silver Spring, Md. 20910. Phone (301) 589-6300; fax (301) 589-3414. □

For the record

A Jan. 11 story reported an incorrect upgrade price for Symantec Corp.'s THINK Reference 2.0. Upgrades from Version 1.0 to 2.0 are \$39. Registered U.S. users who purchased Version 1.0 after Nov. 4, 1992, can upgrade free, except for an \$8 shipping and handling charge.

In the Jan. 11 file synchronization review, the telephone number for Qdea was incorrect. The correct number is (800) 933-9558.

Sigma Designs Reduces the Cost of Increasing Your Screen Size.



A REALLY AFFORDABLE FULL PAGE

	Integrated SCSI Display Products	External SCSI Display Products	Internal PowerBook Video Adapters	
	Sigma Designs	Mirror	Lapis	Enviso
Product	Power Portrait	ViewPort	PowerBase	Display Adapter 030
Retail Price	\$749	\$749	\$599	\$795 to \$1,395
Monitor Included	Yes	Yes	No	No
Accelerated	Yes	Yes	No	No
Granite Model	Yes	No	No	No
PowerBooks Supported	100, 140, 145 & 170	100, 140, 145 & 170	140, 145 145 & 170	140, 145 & 170

**Competitive data accurate at time of printing and subject to change*

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The best monochrome SCSI display solution just got better for PowerBook and compact Macintosh users. If you're tired of seeing only half a page on your built-in screen, add a full-page, plug-and-play display for the newly reduced price of \$749 — that's a savings of up to \$396 over our previous retail price!*

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Mass Micro drives into array market

Level 5 RAID's support hot swapping

By Kirsten L. Parkinson and Henry Norr
Sunnyvale, Calif. — Mass Micro-systems Inc., moving steadily up market, this month introduced a line of high-performance, fault-tolerant disk arrays as well as a slew of other new storage products.

► **High-end arrays.** Intended for file servers and transaction-processing applications, the company's new MASSterArray systems will consist of a SCSI NuBus coprocessor and an external case containing five Seagate Fast SCSI drives, dual power supplies and a digital audio tape backup unit. The systems will ship in February in 2-Gbyte and 4-Gbyte configurations priced at \$20,299 and \$24,199, respectively.

The MASSterArrays will support RAID (redundant array of inexpensive disks) levels 3 and 5, which reduce seek times and boost throughput by harnessing all five drives in parallel and at the same time ensure fault tolerance by writing parity information that makes it possible to reconstruct data on a failed drive. The MASSterArray drives individually offer average

seek times of 10.5 milliseconds, but the array configuration will reduce actual seek times to as little as 2.25 milliseconds.

If RAID Level 3 is selected, one drive is dedicated to storing parity information. If Level 5 is enabled, parity information is distributed across the five disks. The MASSterArrays will support "hot swapping" of drives and power supplies, so administrators can replace failed components without shutting down the system.

Mass Micro's SCSI coprocessor, called the BusMaster, is based on an ATTO Technology Inc. design. The backup drive is an Ardat Turbo Python DAT mechanism with on-board compression. Dantz Development Corp.'s Retrospect Remote backup software will be included.

► **Lower-cost arrays.** Mass Micro's PersonalArrays, also due next month, include two Seagate Fast SCSI drives and the BusMaster card. A 1-Gbyte version will be \$5,899; a 2-Gbyte unit will be \$6,999.

The PersonalArrays will support data striping (RAID Level 0), reducing average seek times to 5 milliseconds, or mirroring (Level 1), which produces a duplicate copy of all data.

► **New SyQuest.** The DataPak 88c, now shipping, is based on the new 88-Mbyte SyQuest mechanism

that can write as well as read 44-Mbyte cartridges.

An external zero-footprint model is \$999; an internal version for the Quadra 900/950, IIfx and Performa 600 is \$899. Upgrades from the original DataPak 88 will be available, but pricing has not been determined.

► **CD-ROM drive.** Mass Micro's latest DataPak CD drive will offer multisession Kodak Photo CD support. It is based on a Toshiba mechanism, with an average access time of 200 milliseconds and a sustained data transfer rate of 327 Kbytes per second, according to the company.

Due next month, the DataPak CD will be available in a \$1,169 external unit and in a \$1,029 internal version for the Quadra, IIfx and Performa 600.

► **DAT drive.** The new Mass-DAT drive will be based on the Turbo Python, a 3.5-inch Ardat mechanism with compression built in. It is slated for release next month in external and internal models priced at \$2,879 and \$2,649, respectively.

Mass Micro also announced a forthcoming 205-Mbyte configuration of its HitchHiker pocket-size drive as well as internal versions of a number of its products, including the Floptipak floptical drive and the DataPak Optical drives for the Performa 600 and IIfx.

Mass Microsystems Inc. is at 810 W. Maude Ave., Sunnyvale, Calif. 94086. Phone (408) 522-1200; fax (408) 733-5499. □

Computer Care 'micro-docks' to add SCSI or video-out to Duos

4-ounce adapters also provide ADB

By Raines Cohen
Minneapolis — Computer Care Inc. last week announced two new "micro-docks" that add video output and a SCSI port to the PowerBook Duos. The company also announced a 16-bit version of its video output card for the PowerBook 140, 145 and 170.

Both of the docks, due in March, will be the same size as Apple's crescent-shaped floppy adapter (about 5 by 2 by 2 inches) and weigh about 4 ounces. Both will include an Apple Desktop Bus connector.

► **BookView Duo.** This \$299 video interface will include a video port that can display up to eight-bit-color or gray-scale images on monitors as large as 16 inches.

The dock will automatically determine the size and type of monitor connected and configure

the video when the Duo starts up.

► **SCSI Duo Adapter.** This \$179 device will include an HDI-30 SCSI connector so users can connect to a SCSI device without needing a larger, heavier or more expensive dock. It also will have an ADB port.

► **BookView Imperial-16,** a \$1,549 adapter for the PowerBook 140, 145 and 170, will support 16-bit color on monitors as large as 16 inches and eight-bit color on displays as large as 19 inches.

Like the \$1,189 eight-bit BookView Imperial, the new card, due by the end of the month, will support VGA and Apple displays, as well as overhead-projector LCD flat panels. An optional cable, sold separately for \$99, will add NTSC output.

The company said it will continue to sell the eight-bit version of the BookView Imperial.

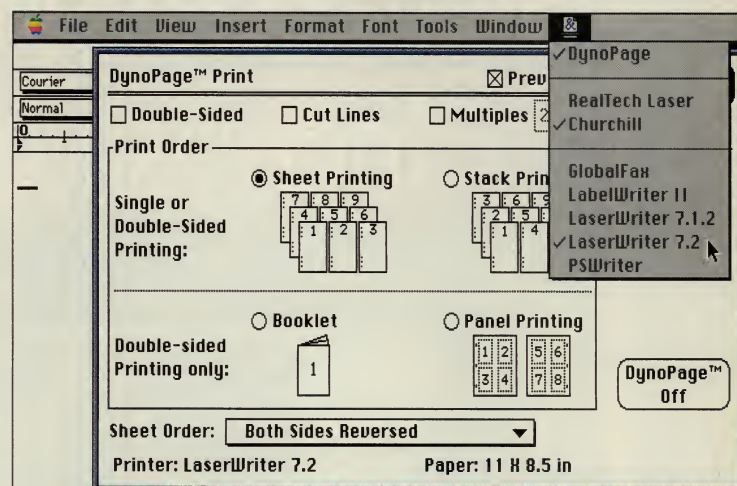
Computer Care Inc. is at 420 N. Fifth St., Suite 1180, Minneapolis, Minn. 55401. Phone (612) 371-0061 or (800) 950-2273; fax (612) 371-9342. □

La Cie adds higher-capacity, removable options

By Henry Norr
Beaverton, Ore. — La Cie Ltd. is adding a slew of new higher-capacity and removable-media options to its storage line.

► **High-capacity 3.5-inch units.** The company announced 700-Mbyte, 1.05-Gbyte and 1.2-Gbyte additions to its external Cirrus and Tsunami drive lines. The new units are based on the 3.5-inch Enterprise mechanisms from La Cie's parent company, Quantum Corp.; they offer an average seek time of 10 milliseconds, according to the company. The drives have switchable active terminators and come with La Cie's \$149 Silverlining utilities.

In La Cie's compact Tsunami case, the drives are priced at \$1,479, \$1,819 and \$2,049; the Cirrus versions, which feature a larger, more rugged case, are \$30 less. All are covered by a 30-day money-back guarantee, a two-year limited warranty and toll-free technical support. Users can extend the war-



PrintChooser, a control panel bundled with Version 2.0 of Portfolio Software's DynoPage, offers quick access to available printers without accessing the Chooser.

Users can switch printers, drivers on the fly with PrintChooser util

By Robert Hess
Cupertino, Calif. — Portfolio Software Inc. this month shipped Version 2.0 of its DynoPage printing utility.

The new version comes with PrintChooser, a control panel that gives users several convenient new ways to select printers and print drivers: from the menu bar, from a submenu off the Page Setup or Print command, or with a hot key. Normally, users switching among printers or between hard copy and fax output must open the Chooser for each change.

PrintChooser also lets users locally rename network printers to familiar names.

DynoPage lets users print any file on any page size and do double-sided printing, thumbnails and impositions. Version 2.0 adds a feature to rearrange sheet order when printing. Additionally, the new release offers improved compatibility with printers such as Hewlett-Packard Co.'s DeskWriter C, according to Portfolio.

DynoPage costs \$89.95. Upgrades from all previous versions are \$19.95.

PrintChooser is available separately from Portfolio for \$19.95.

Portfolio Software Inc. is at 10062 Miller Ave., Cupertino, Calif. 95014-3471. Phone (408) 252-0420; fax (408) 252-0440. □

ranty to five years for \$1 per Mbyte. The 700-Mbyte units are due this month; the others are available now.

► **New PocketDrive model.** La Cie is adding a 160-Mbyte option to its line of palm-size, 10-ounce PocketDrives. The new capacity, based on a 2.5-inch Quantum Go mechanism, is due by the end of the month at an introductory price of \$849. It will include a T connector with a pass-through SCSI port and an adapter that provides power from the Apple Desktop Bus. An AC adapter and a special PocketDock docking cable will be available as \$59 options.

The company still offers 40-, 80- and 120-Mbyte PocketDrives.

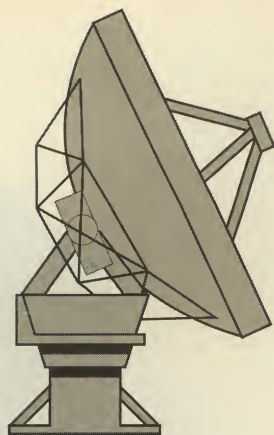
► **New SyQuest.** Also due by the end of the month is a new 88-Mbyte removable-cartridge drive. Based on SyQuest Technology Inc.'s new SQ5110C mechanism, the drive will write as well as read, but not format, 44-Mbyte cartridges. The drive, packaged in a zero-footprint case, will be priced at

\$719, including one cartridge, Silverlining and a one-year warranty.

► **Quadra removables.** La Cie now is offering internal tape and optical drives for the Quadra 900 and 950. A 3.5-inch magneto-optical drive, incorporating a Panasonic mechanism with a 38-millisecond seek time, is \$1,399. A TEAC streaming-tape unit that can back up 600 Mbytes per cassette is \$699; a 155-Mbyte tape unit is \$549.

In addition, La Cie offers two digital audio tape options for the Quadas. An Ardat mechanism capable of storing up to 2 Gbytes on 90-meter tapes is \$1,249; a Hewlett-Packard Co. drive that uses on-board compression to more than double capacity is \$1,549. The optical drive comes with Silverlining; the tape units come with Dantz Development Corp.'s Retrospect.

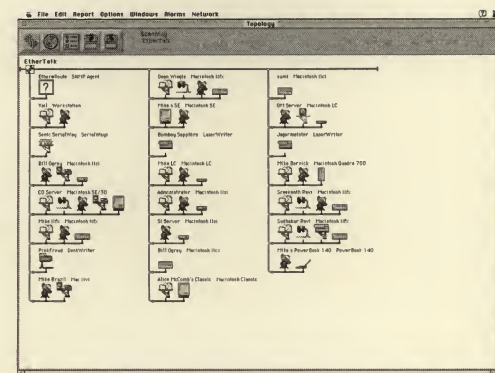
La Cie Ltd. is at 8700 S.W. Creekside Place, Beaverton, Ore. 97005. Phone (503) 520-9000; fax (503) 520-9100. □



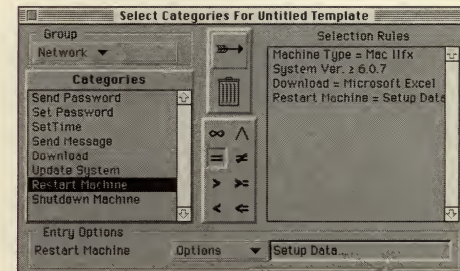
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can Rename or Restart the printer, Turn the Startup Page On/Off, Download Fonts, and much more. Interested in running a report on a group of users or printers? Well, the Radar Report generator will let you find out any hardware or software configuration about any Mac which has the Radar Responder installed. Sound like something you need? Wait, there's more! Password Protection is provided to all users against the 'Mad Doctor' type network administrator. For large networks, you can even assign groups of users (by zones, etc.) to a specific Radar administrator.

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Topology Map	✓	✓
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Network Alarms on any Device or Service	✓	
Download Fonts, Restart and Rename Printers	✓	
List of all Files on Users Disk(s)	✓	
Get Ethernet Addresses Remotely	✓	
Price	\$499	\$1,995

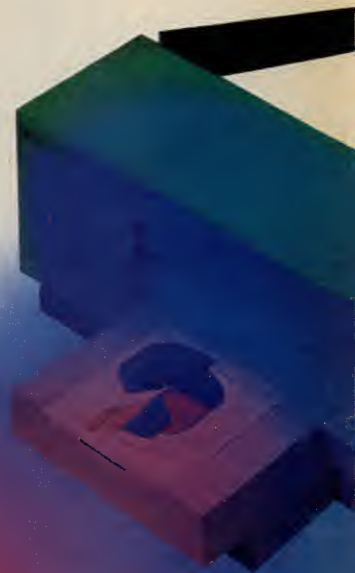
Best of all Radar 3.0 is just \$499 for unlimited users! Check out the product comparison and call today to order or for a free 30 day demo disk. Also, if you own a previous version of Radar, you can upgrade for \$99.



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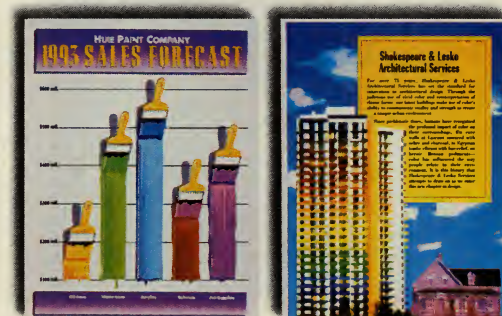
1-800-535-0725

Sonic Systems, Inc.

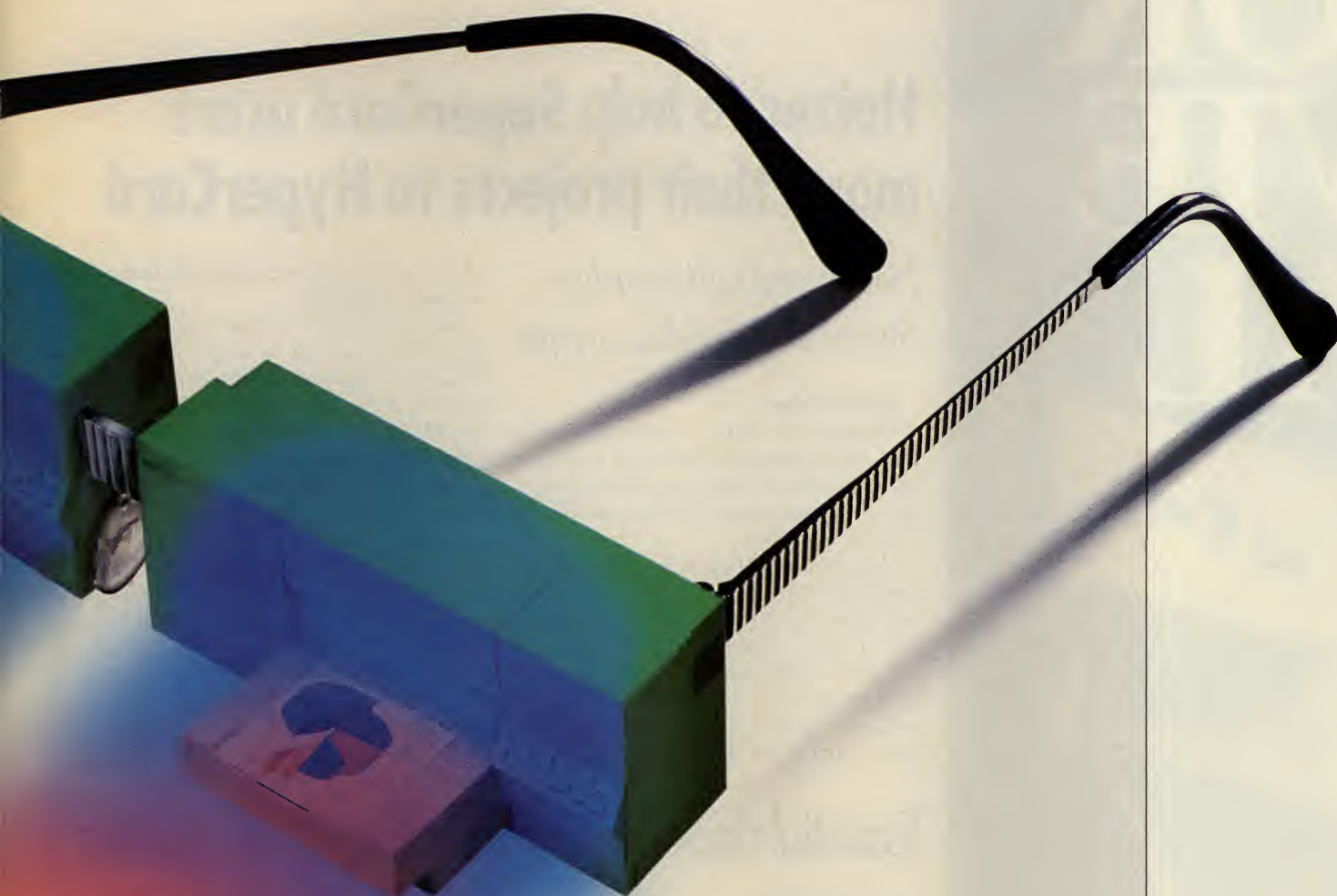


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12

News

MACWEEK 01.18.93

Heizer to help SuperCard users move their projects to HyperCard

Homeward will translate SuperCard graphics, scripts

By Raines Cohen

Pleasant Hill, Calif. — Heizer Software this month announced Homeward, a tool that will help users of Aldus SuperCard convert their projects into stacks that work with Claris Corp.'s HyperCard.

Homeward will ship next month for less than \$200. The company said the product will perform about 70 percent of the work necessary to convert projects to stacks.

SuperCard can import HyperCard stacks, but HyperCard can't import SuperCard projects, mainly because SuperCard supports color, multiple windows, irregularly shaped

objects and an enhanced scripting language, according to Heizer.

Homeward will translate color graphics and objects, as well as scripts attached to windows. Irregularly shaped objects will be handled by HyperCard external commands (XCMDs). The program will create a list of items it was unable to fully translate.

Many SuperCard users are abandoning the system because Seattle-based Aldus Corp. reportedly wants to sell SuperCard to another company. It acquired the authoring system two years ago when it purchased Silicon Beach Software Inc. of San Diego and reportedly is not doing any new development on the program.

Heizer Software is at 1941 Oak Park Blvd. No. 30, P.O. Box 232019, Pleasant Hill, Calif. 94523. Phone (510) 943-7667 or (800) 888-7667; fax (510) 943-6882. □

Essential stack lets Mac control lights, computers

By Nathalie Welch

Staatsburg, N.Y. — Essential Software this month shipped a hardware-software system that can control a variety of devices, including computers, lamps and thermostats. The company also released Version 2.1 of its Easy Alarms user-scriptable calendar, reminder and to-do list manager.

Essential's Home & Office Control System, priced at \$249, includes X-10 Inc.'s Home Control Interface (priced separately at \$69), a box that plugs into the Mac's serial port and sends signals over existing AC wiring to control computers, peripherals, thermostats, appliances and other devices. The package also includes a variety of X-10 lamp and appliance modules, which connect to the device to be controlled.

The system could, for example, automatically turn up the heat, start up computers, turn on the lights and brew coffee in an office every morning. In the evening, it could ask whether all workers have left, and if it receives no response, shut down everything.

A HyperCard stack included in the package provides a controller card for immediate control of appliances and peripherals and two programmer cards that list actions the Home Control Interface is scheduled to perform at specified times. Additional programmer cards can be added to the stack; the interface can hold up to 128 programmed events. The stack requires HyperCard 2.1.

The package also includes the new Easy Alarms, which now can communicate with the Home Control Interface. Other new features let users perform mathematical functions, execute external commands (XCMDs) and append logs to text files. The system comes with a power supply and Mac serial cables.

Easy Alarms 2.1 is priced separately at \$99 for a single user or \$499 for a 10-pack. Upgrades from Version 2.0 are \$5; upgrades from earlier versions are \$25.

Essential Software is at 28 Mulford Ave., P.O. Box 402, Staatsburg, N.Y. 12580. Phone (914) 889-3865 or (800) 438-1449; fax (914) 889-8365. □

Relisys 14" multiscan first in line of Mac monitors

Milpitas, Calif. — Relisys last month announced a new 14-inch color display.

The VividView RE-1420, priced at \$745, is the first in a new line of monitors Relisys plans to offer to the Mac market.

The display provides a resolution of 640 by 480 pixels with a dot pitch of 0.28 mm and a screen refresh rate of 66 Hz. It works with a variety of Apple and third-party eight-bit-color graphics cards to bring 256 colors to the screen.

The VividView display, compatible with Mac II machines and above, comes with an antiglare screen, a tilt-and-swivel base and front image controls. The monitor also can take advantage of the on-board video of the Quadra.

Relisys, a subsidiary of TECO Corp., is at 320 S. Milpitas Blvd., Milpitas, Calif. 95035. Phone (408) 945-9000; fax (408) 945-0587. □



The 14-inch VividView RE-1420 color monitor is the first offering in Relisys' new line of multiscan displays for the Macintosh market.

Dash 40Q upgrade system packs Quadras with 512MB of RAM

Sixty Eight Thousand offers two configurations

By Neil McManus

Scotts Valley, Calif. — Sixty Eight Thousand Inc. now is offering an upgrade system that lets users equip their Quadra 900 or 950 with up to 512 Mbytes of RAM.

The system comes in two configurations:

► **Dash 40Q Workstation**, priced at \$8,800, includes a Quadra 950 logic board repackaged in a new tower chassis with a 1.44-Mbyte SuperDrive floppy and mounting tray, a 400-watt power supply and dual-fan system with filtered cooling.

► **Dash 40Q Upgrade**, at \$2,500, lets users upgrade their existing Quadra 900 or 950 to have the same features as the 40Q Workstation.

Users of the Dash 40Q systems can upgrade their machines with Sixty Eight Thousand's proprietary 32-Mbyte RAM SIMMS, available for \$1,900 each. The company said the 40Q system supports up to a half-gigabyte of high-speed dynamic RAM, which is eight times the maximum recommended by Apple for the Quadra 950.

Users also can order Dash 40Q systems with options such as a 32-bit Fast and Wide SCSI-2 controller, a disk array, or a digital audio tape, CD-ROM, optical cartridge or SyQuest 88-Mbyte removable cartridge drive.

The company said the Dash 40Q is aimed at pre-press users, multimedia developers or users looking for a fast disk array file server or a computing hub for additional processors, such as Radius' Rocket 68040 cards.

Sixty Eight Thousand Inc. is at 160 Technology Circle, Scotts Valley, Calif. 95066. Phone (408) 438-1777; fax (408) 438-2967. □



Sixty Eight Thousand's Dash 40Q Workstation packs a Quadra 950 motherboard in a custom tower box.

Powercore unveils group scheduler

By Kirsten L. Parkinson

Boston — Powercore Inc. last week announced a Macintosh version of Network Scheduler 3, its group-scheduling software, at NetWorld 93 Boston.

The Mac client-server application, due in April, will let users transparently share calendar information with DOS and Windows users of Network Scheduler 3 through Novell Inc.'s NetWare or an AFP (AppleTalk Filing Protocol)-compatible server.

Features of Network Scheduler 3 for the Mac will include:

► **Conflict detection.** When a user proposes a meeting, Network Scheduler 3 automatically will search the calendars of the invited guests to find a time when all are free. If a user attempts to schedule a meeting when people are busy, it will notify the user of conflicts.

► **Multiple access levels.** Network Scheduler 3 will let users determine how much access other users should have to their calendars. Access levels will include the ability to see only blocked-out sections of time; the ability to view the subject line of an activity; and full third-party scheduling access.

► **Resource scheduling.** Users will be able to schedule unlimited numbers of resources, such as conference rooms and office equipment, with the product.

Other features will include support for recurring events, private to-do lists, alarms and a notes option.

Prices are not yet set, but the company said the cost for Network Scheduler 3 for the Mac should average about \$50 per user.

Powercore Inc. is at 1 Diversatech Drive, P.O. Box 756, Manteno, Ill. 60950-0756. Phone (815) 468-3737 or (800) 237-4754; fax (815) 468-3867. □

PerFit to service Outbound

Boulder, Colo. — Outbound Systems Inc., the Macintosh-compatible notebook maker, was dissolved last week, but a new company of former employees will provide upgrades and support.

PerFit Inc. will take over the repair, technical support and upgrades of Outbound systems users. The company said it initially will not sell any new CPUs, although it will sell upgrades and accessories (see MacWEEK, Dec. 14, 1992).

Users will be able to get technical support only by calling (900) 737-3488 and paying \$1.25 a minute.

PerFit Inc. is at 6205-B Lookout Road, Boulder, Colo. 80301. Phone (303) 530-7333; fax (303) 530-5409. □

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MPW to get incremental linking

Update will support distributed processing

By David Morgenstern

San Francisco — Developers attending Macworld Expo this month saw a preview of a new version of Apple's software-development environment.

Macintosh Programmer's Workshop (MPW) Version 3.3, scheduled for final release this spring, will improve System 7 support, fix many bugs in the current release and allow keyboard navigation in dialog boxes.

Enhancements to the \$150 environment include:

► **Incremental Linker.** Developers will be able to build new versions of their programs faster with this new tool, which links only files that have been changed since the last compile.

A demonstration at the expo showed a threefold increase in initial linking speed. Apple said most applications could be linked subsequently in just one minute.

The high-speed Linker function is limited to the creation of applications

and tools. It requires more memory because it stores object files in RAM during the link operation. The normal, slower linker still will be required for developers to build the final release of their program.

► **Revised documentation.** The MPW documentation has been completely reorganized and rewritten, incorporating the copious notes added since the release of MPW Version 3.0. The documentation will consist of three books: Introduction to MPW, Building and Managing Programs with MPW, and MPW Command Reference.

► **Distributed processing.** ToolServer 1.0, an Apple event-aware MPW Shell included with MPW 3.3, allows MPW or third-party programming environments to distribute compiling among multiple Macs on a network.

SourceServer 1.0 will let third-party environments access the MPW Projector source-code control system functions via Apple events. MPW and other development environments will be able to share a common project database with SourceServer. ACI US Inc., Calliope Enterprises

and Symantec Corp. reportedly are building support for these servers into their programs.

Developers attending the demonstration said they look forward to the new features. "We have a large program, so the Incremental Linker will stop us from tearing our hair out," said John Roper, senior software engineer at Insignia Solutions Inc., publisher of SoftPC.

Roper said he also appreciated the user-interface improvements. "The Command-key options in the Projector dialogs are brilliant," he said. "It's so annoying when you go to find a particular file and can't type at it because you start a comment instead. The changes will be a real boon."

A beta version of the program will be included on the February edition (Issue 10) of Apple's Essentials•Tools•Objects CD-ROM, according to Richard Fleischman, MPW project manager. He said the final version of MPW 3.3 likely will be released by May.

APDA is at P.O. Box 319, Buffalo, N.Y. 14207-0319. Phone (716) 871-6555 or (800) 282-2732; fax (716) 871-6511. □

TeleMagic upgrade offers more user-defined options

By Carolyn Said

San Marcos, Calif. — TeleMagic for Macintosh has been upgraded to Version 12, increasing the number of fields and offering new optional add-ons for remote salespeople and for billing.

Written in Microsoft Corp.'s FoxBASE+/Mac database, the sales and lead tracking program offers communications, database, reporting, note-pad, calendar, word processing and order-entry modules.

Enhancements in Version 12, available now, include:

► **Fields.** The upgrade adds 80 more user-definable fields for a total of 103 and adds user-defined list boxes for any fields. Users now can edit fields more directly, without going through a dialog box.

► **Field sales automation.** A new optional add-on lets salespeople in the field update the master database remotely with new and modified records as well as synchronize files. The module is \$249 for a single user and \$349 for multiple users.

► **Billing option.** A new optional module called Billing Magic adds user-defined alerts for situations such as low inventory and approaching or exceeding credit limits; batch invoice printing; credit and payment tracking; balance-due tracking; user-defined invoice styles; network secu-

TeleMagic™			
FTZ	FEENY	05-29-92 12:15A	None
Primary ID	Secondary ID	Recall Date	Filter In Use
Contact	Mr. Rick Feeny	05-21-92 - Reorder of 2500 units	
Company	FTZ Industries	02-12-92 - Ordered prototype of the new version	
Address	Mauldin Industrial Park	01-15-92 - Inquiry regarding special modifications. Call their chief engineer	
Suite	Rt. 6 Box 75	Bob Kennedy about his regts then discuss with Jimm Zilligan	
City/State	Simpsonville SC	12-14-91 - Ordered 500 units for field reps, phase in over 6 months	
Zip/Country	29681	11-23-91 - Follow-up call, installation went well, very happy with product	
Phone	1-803-963-5000 W	10-14-91 - ordered 20 units for home office, field orders to follow	
FAX	1-803-259-1426 F		
Last Call	05-21-92 13:42		
Title	Account Executive		
Source	Trade Journal		
Status	Pending		
Salesrep	John		
Start	07-26-89 13:48		
Modified	05-21-92 13:41		
Dear	Rick		

Based on FoxBASE+/Mac, TeleMagic for Macintosh Version 12 offers communications, database and word processing modules to help users track sales and leads.

rity on posting, editing or deleting; and printing c.o.d. tags. Billing Magic is \$249 for a single user and \$349 for multiple users.

Other new features include a resizable Notepad window, automatic creation of primary and secondary IDs, user-defined browse, user-defined standard address, last-call update exceptions, a new filter-expression builder, and a week-at-a-glance calendar view.

A \$49.95 TeleMagic Developers' Kit with FoxBASE+/Mac source code lets users customize the pack-

age and integrate it with other software such as accounting packages.

TeleMagic is \$495 for single users, \$995 for three users and \$2,495 for unlimited users. Upgrades are \$45, or \$15 without documentation.

TeleMagic is published by Remote Control International of Carlsbad, Calif., but is developed, marketed and supported by Max-Solutions, a contract programmer.

MaxSolutions is at 945 Fulton Road, San Marcos, Calif. 92069. Phone (619) 591-3250; fax (619) 591-3251. □



News

BRIEFS

Bundle includes HP palmtop, Mac transfer utility

Laguna Nigel, Calif. — EduCALC this month shipped Mac in Your Palm!, a bundle including a Hewlett-Packard Co. HP 95LX PalmTop PC equipped with file transfer software supplied by DataViz Inc. of Trumbull, Conn.

The \$475 package lets users port Mac files to and from the HP palmtop at a savings of \$200 off the combined prices of the system and translator software.

The MacLinkPlus/HP 95LX software supports more than 75 translator combinations that let users move files between Mac and PC applications, including Power Up Software Inc.'s Address Book Plus; Portfolio Software Inc.'s Dynodex; WordPerfect; Claris Corp.'s MacWrite II; Lotus 1-2-3; and Microsoft Excel, Works and Word.

EduCALC is at 27953 Cabot Road, Laguna Nigel, Calif. 92677. Phone (714) 582-2637 or (800) 677-7001; fax (714) 582-1445.

Over-the-shoulder PowerBook holder premieres

San Jose, Calif. — Ong Engineering this month shipped PowerStrap, a security cable and carrying strap for Apple PowerBooks.

The PowerStrap attaches to the back of a PowerBook next to the feet using two steel brackets. Its elastic shoulder strap doubles as a carrying handle, and the lightweight steel cable and padlock also can be used to secure the PowerBook's power adapter.

The \$79.95 PowerStrap fits the PowerBook 140, 145, 160, 170 and 180 but not the 100 or the Duos.

Ong Engineering is at 2305 Cherrystone Drive, San Jose, Calif. 95128. Phone (408) 249-4890; fax (408) 249-3647.

Plusware ships PowerBook utility bundles

Markham, Ontario — Plusware Corp. this month released a package of bundled hardware and software products for PowerBooks, offering discounts of 30 percent to 50 percent off the products' combined retail prices.

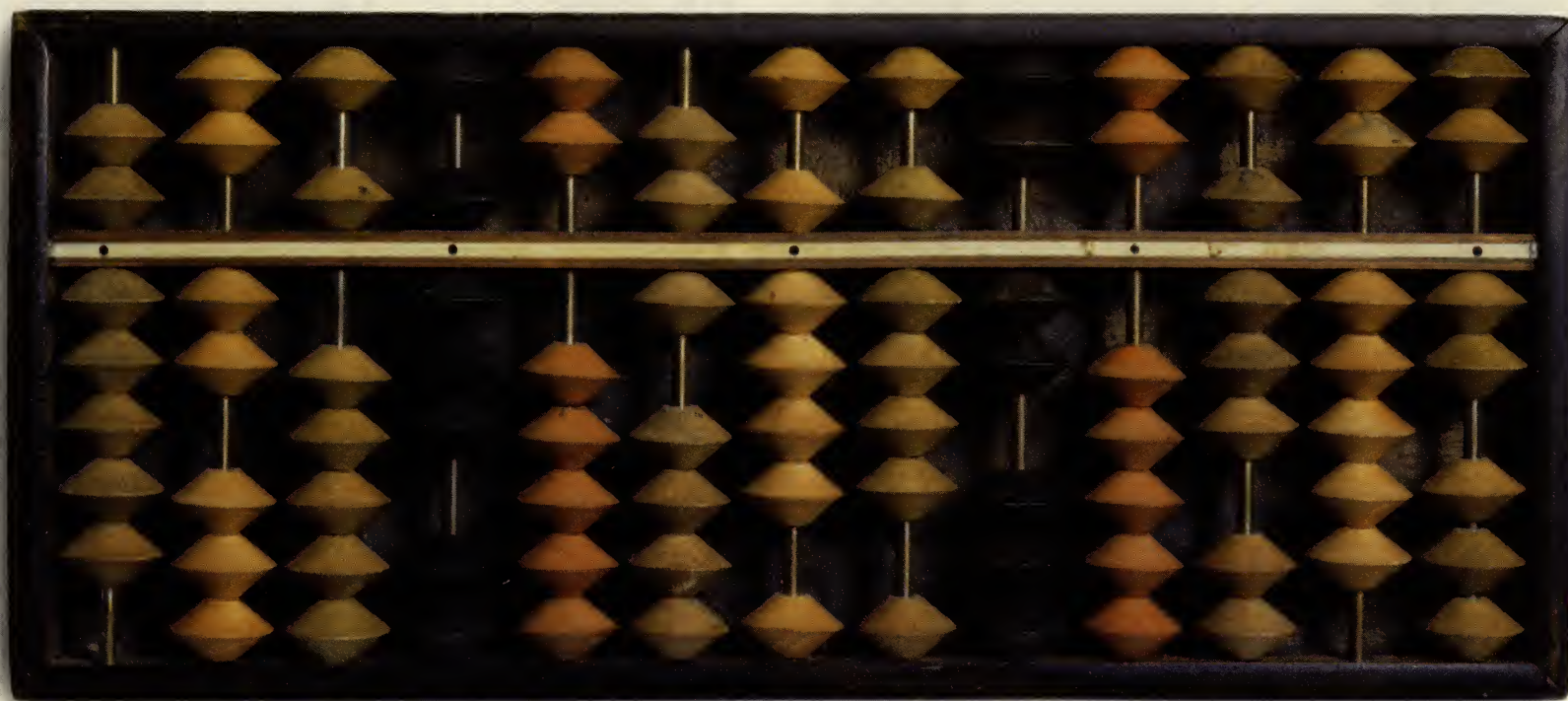
Plusware is bundling its numeric key pad with Targus Inc.'s carrying case, Connectix Corp.'s CPU (Connectix PowerBook Utilities) and Aladdin Software Inc.'s StuffIt SpaceSaver utility.

Prices for the bundles range from \$129 for the Plusware/Targus bundle to \$229 for all four products.

Plusware also recently announced a \$49 trackball and a price cut on its numeric key pad from \$129 to \$99.

Plusware Corp. is at 80 Citizen Court, Unit 2, Markham, Ontario L6G 1A7, Canada. Phone (416) 477-0015; fax (416) 477-0250.

It's been centuries since working with numbers was this easy.



The abacus first appeared around 500 or 600 B.C. Some say it was invented by the Egyptians. Others think it was the ancient Chinese. But whoever it was, they had the right idea: create a simple, easy-to-use device for working with numbers, and people will be a lot more productive.

Like the abacus, 1-2-3® for Macintosh® was inspired by simplicity, and the new Release 1.1 is even simpler to use. Now you can drag-and-drop data between worksheets. And with new SmartSum, you can simultaneously sum multiple ranges. And only 1-2-3 for Macintosh is fully compatible with other versions of 1-2-3. So you can work more efficiently and productively with the 18 million other 1-2-3 users across all major platforms.

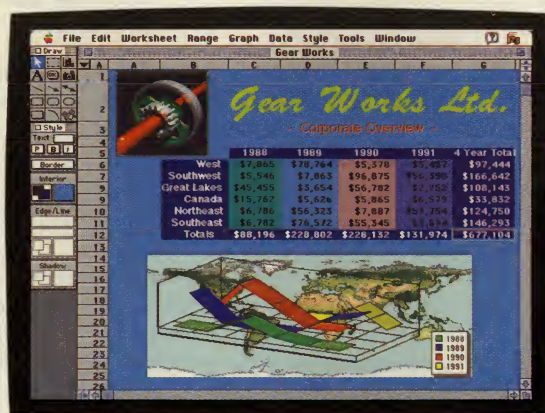
The easiest graphing of any Mac® spreadsheet.

The remarkable graphing and charting capabilities of 1-2-3 make it the best Macintosh spreadsheet for presenting data. Because unlike Microsoft® Excel, 1-2-3 lets you store your graphs and charts in the same file as your worksheets. So you can manipulate data, text and graphics

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Now Release 1.1 takes these graphing capabilities even further.

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New graphing enhancements in Release 1.1 let you turn your numbers into graphic presentations faster and easier than ever.

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Only with the true 3D capabilities of 1-2-3 can you easily consolidate multiple spreadsheets into *one* file without having to link the files. 3D allows all spreadsheet functions to be performed *through* multiple worksheets just as they are performed down rows and across columns.

1-2-3 for Macintosh. All in all, it's the easiest way to work with numbers to come along in centuries. To

find out for yourself, buy a copy from your Lotus Authorized Reseller,* and try it for 60 days with a full money-back guarantee direct from Lotus®. Or call **1-800-TRADEUP, ext. 7369**** for a free working model. (Excel users be sure to ask about our special upgrade price.***)

Lotus 1-2-3 for Macintosh

The QuickTime animation "Magical Gear" was created using Infini-D from Specular International. ©1991 Specular International.

*Ask your Apple Authorized Retailer about Apple's new "Easy Way" bundle, which gets you 1-2-3 and three other leading software products at a great price. **In Canada call 1-800-GO-LOTUS. ***Please have your credit card and product package ready when you call. ©1992 Lotus Development Corporation, 55 Cambridge Parkway, Cambridge, MA 02142. All rights reserved. Lotus and 1-2-3 are registered trademarks of Lotus Development Corporation. Microsoft is a registered trademark of Microsoft Corporation. Mac and Macintosh are registered trademarks of Apple Computer, Inc.

Grammatik gets to root of words

Update includes word-analysis tool

By Lisa Picarille

San Francisco — Reference Software International is readying an update to its Grammatik for the Mac, bringing the grammar and style checker up to par with its Windows counterpart.

Grammatik 5 for the Mac, slated to ship next week, will add MorphProof, a new word-analysis technology designed to improve grammar and spelling accuracy by examining the roots of words.

The new version of the \$99 program automatically will provide replacements and corrections in the appropriate tense and number. It also will include "automatic sen-

tence rechecking," which double-checks changes. A Bookmark function will let users stop in the middle of a document and instantly return where they left off.

The program will alert users to redundancies within paragraphs via a context-checking function. Grammatik will work with most Mac word processors using the Apple Clipboard, according to Reference.

Users of the previous version, Grammatik 2.0 for the Mac, will be able to upgrade for \$34.99.

Reference also is now shipping a Mac version of Random House Webster's Electronic Dictionary & Thesaurus. The \$99 program, previously available for only DOS and Windows, gives definitions for more than 180,000 words, which are linked to more than 275,000 synonyms from the Ran-

dom House College Thesaurus.

Reference Software was acquired this month by WordPerfect Corp. (see story, Page 40).

Reference Software USA is at 330 Townsend St., Suite 128, San Francisco, Calif. 94107. Phone (415) 541-0222 or (800) 872-9933; fax (415) 541-0509. □

Lapis joins Ethernet, mono video

By Nathalie Welch

Alameda, Calif. — Lapis Technologies Inc. last month announced its DisplayNet line of video-interface boards, which combine large-screen display support with an Ethernet connection.

All of the \$549 boards support a variety of 15-inch monochrome monitors at a resolution of 640 by 480 pixels or the Lapis 19-inch two-page monochrome monitor at a resolution of 1,024 by 828 pixels. The boards support a 75-Hz refresh rate.

► **DisplayNet II**, due to ship this

Awards to honor user groups for community-service projects

By Henry Norr

Washington — The Association of Personal Computer User Groups and Ziff-Davis Publishing Co., MacWEEK's corporate parent, are soliciting nominations for a new award program recognizing user-

group projects that provide computer assistance to nonprofit organizations in their communities.

The prizes are called the Computer Industry Awards Recognizing Exceptional Achievement in Community Help, or the Reach Awards. Five awards of \$15,000 will be given, one in each of the following categories: education and training, civic and cultural affairs, environment and conservation, medicine and health, and social welfare and improvement. The funds will support the winning projects.

All independent, campus and corporate user groups that have supported community service programs for noncommercial, not-for-profit organizations are eligible. Applications and information about the program have been mailed to some 3,000 groups, including more than 1,600 Mac groups. Forms also are available from APCUG, a nonprofit organization dedicated to assisting user groups.

Nominations must be postmarked by Feb. 1. Awards will be presented in May.

For more information user groups can contact APCUG President Judy Brown at (414) 722-2523 or at 72241,1233 on CompuServe. APCUG is at 1730 M St. NW, Suite 700, Washington, D.C. 20036. □

White Crow gives Office Manager more font and printing flexibility

By Lisa Picarille

Burlington, Vt. — White Crow Software Inc. this week is expected to ship an upgrade to its Office Manager application.

The \$99 program aims to help small businesses manage business contacts. It includes an address file, a letter processor, and a project handler with to-do list and customizable job-tracking features.

Version 2.5 will let users generate letters containing multiple fonts and styles. A new default printing mode makes it possible to view letters in any font and size, while printing in a different font.

The program's enlarged address field now can accommodate six-line addresses. In addition, users now

can prioritize to-do lists and post items to future dates. White Crow also beefed up tracking features in the program, so users can track incoming calls, letters and faxes. Version 2.5 also can print envelopes on more printers.

Office Manager Remote 2.5, priced at \$79, lets out-of-the-office users exchange addresses. Mail Manager, a mail merge utility, sells with Office Manager for \$149.

The upgrade is \$39 until Feb. 28 or \$49 thereafter. It is free to customers who purchased the program after Dec. 1, 1992.

White Crow Software Inc. is at 19 Marble Ave., Burlington, Vt. 05401. Phone (802) 658-1270 or (800) 424-0310; fax (802) 658-3873. □

Kits help drives fit new Macs

By Jeff Ubois

San Francisco — Two companies at Macworld Expo this month showed mounting kits that let users install new hard drives in their Macs or recycle old internal drives with new external enclosures.

► **Casa Blanca Works Inc.** shipped its CBWorks line of hard drive enclosures and internal mounting kits for the Mac, which come with the company's Drive7 Lite hard disk management software. The four external enclosures handle 2.5-inch, 3.5-inch and 5.25-inch hard drives, and range in price from \$60 for a MacPocket mini-enclosure for Conner and Quantum drives to \$120 for a PowerBook battery-powered enclosure for 2.5-inch drives.

► **Micro Accessories Inc.** shipped a line of internal hard drive mounting kits ranging in price from \$4.10 in quantity for the Mac LC and IIsi to \$7.75 for the Quadra 950. The company also offers Mac SCSI formatting software for \$4 and SCSI address switches for \$3.35.

Casa Blanca Works Inc. is at 148 Bon Air Center, Greenbrae, Calif. 94904. Phone (415) 461-2227; fax (415) 461-2249.

Micro Accessories Inc. is at 6086 Stewart Ave., Fremont, Calif. 94538-3152. Phone (510) 226-6310 or (800) 777-6687; fax (510) 226-6316. □

month, supports both twisted-pair (10BASE T) and thin-net (10BASE 2) cable systems for NuBus Macs, including the Performa 600.

► **DisplayNet PDS/30**, also due this month, offers the same Ethernet support as the DisplayNet II but is designed for the Mac SE/30 and IIsi. For the IIsi, it requires a \$35 processor director slot adapter available from Lapis.

► **DisplayNet LC-10Base T**, due to ship in March, is designed for the Mac LC family and offers a twisted-pair connection. It also can be used with the Performa 400.

► **DisplayNet LC-Thin**, also due in March and aimed at Mac LC line and Performa 400 users, offers a ThinNet connection.

Lapis Technologies Inc. is at 1100 Marina Village Parkway, No. 100, Alameda, Calif. 94501. Phone (510) 748-1600; fax (510) 748-1645. □

SCSI formatting tops Disk Café menu

By Henry Norr

Campbell, Calif. — Bering Industries is inviting Macintosh gourmets to sample the fare at Disk Café, its new SCSI disk formatting and utility package.

The \$59 program, available now, supports magneto-optical, floptical, Bernoulli and SyQuest removable-media drives, in addition to all standard hard drives, according to Bering. Special features include write-verification and comparison options, an auto-sleep setting that saves power by spinning down idle drives, and an adjustable read-ahead cache that uses Mac system memory. The package also enables System 7 users to put their virtual-memory store file on removable media. Disk Café has three main components:

► **Cappuccino**, a control panel for getting information about and mounting SCSI drives, setting the cache, and installing the Bering driver on new volumes.

► **Disk Café**, a formatting and partitioning application that also provides detailed information about

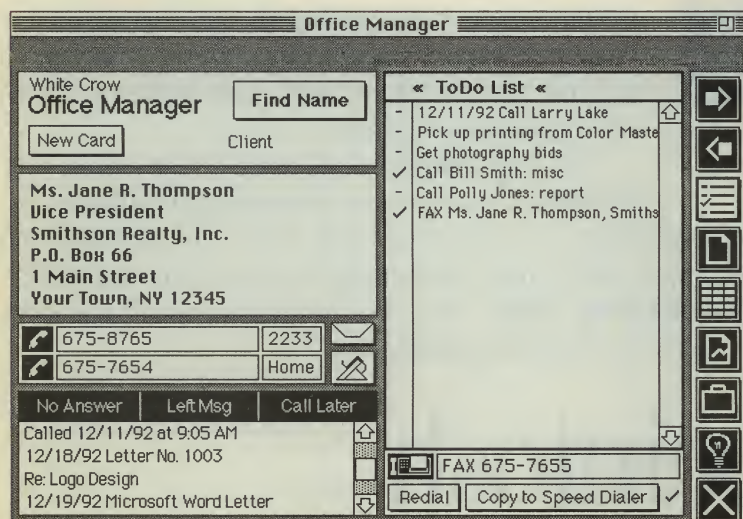


Bering Industries' Disk Café SCSI formatting and utilities package features a culinary metaphor and an iconic interface.

the user's Mac, cards, peripherals and network.

► **Kitchen**, a separate diagnostic and control application for advanced users. Users can view, edit or copy any sector on disk; request detailed status information; send commands directly to SCSI devices; and control technical parameters, including vendor-specific "pages."

Bering Industries is at 246 E. Hacienda Ave., Campbell, Calif. 95008. Phone (408) 364-2233; fax (408) 374-8309. □



White Crow's Office Manager 2.5 personal information manager now can track incoming calls and faxes. The new version also adds new to-do list editing features.

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Mac buyers don't experience unusual delays in delivery

*Delivery of
Macs has
averaged
from two to
four weeks,
according to
a survey by
MacWEEK.*

Volume buyers surveyed in MacWEEK's latest QuickPoll have not experienced unusual delays when buying Macintoshes, despite Apple's backlog on CPU production.

Although Apple acknowledged in December that it was scrambling to meet demand (see MacWEEK, Dec. 7, 1992), readers surveyed that month reported Mac delivery took from two to four weeks, about the same as in the previous quarter.

Managers also said that the time between ordering a Mac and receiving it is an important consideration and discussed steps to speed delivery. Respondents predicted longer delays, especially on new high-end Macs, during the coming three months.

Delivery times. Two-thirds of survey respondents' work sites had ordered Macs within the past three months from a variety of sources and with varying delivery times from each source.

Respondents reported that Apple had the longest delivery time — 26 days on average. They reported an average delivery time of 14 days from both computer dealers and superstores, and 13 days from value-added resellers and value-added dealers.

Although average delivery times are similar for most sources, satisfaction with these times differed significantly. One in five respondents

(20 percent) reported that the waiting time from VARs is unacceptable, compared with 13 percent who found dealer delivery unsatisfactory, despite virtually identical average delivery times from these two sources. Managers evidently maintain different expectations for delivery from each channel.

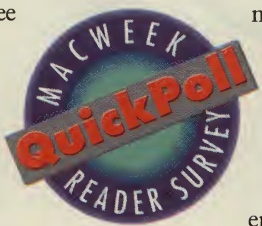
Overall, respondents who ordered Macs within the past three months experienced an average delivery time of 16 days.

Mac orders. Among those ordering Macs within the past three months, the largest proportion ordered the Quadra 950 or 700 (40 percent) and IIfx (39 percent), followed by the IIsi (34 percent) and PowerBook 180 or 170 (33 percent).

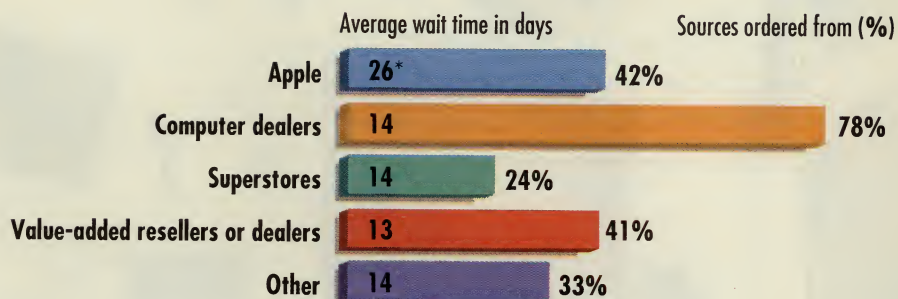
Overall, Mac managers ordered an average of four Macs within the past three months; almost all of them had been received. The Duo models suffered the largest gap in delivery: On average, five had been ordered but only two received. The IIfx, one of Apple's newest desktop models, also had a delivery gap: On average four had been ordered and two received.

Strategies. When necessary, most Mac managers (58 percent) attempt to speed Mac delivery from their vendors. Of those who have tried, the majority (49 percent) indicated that they are successful usually

See QuickPoll, Page 22



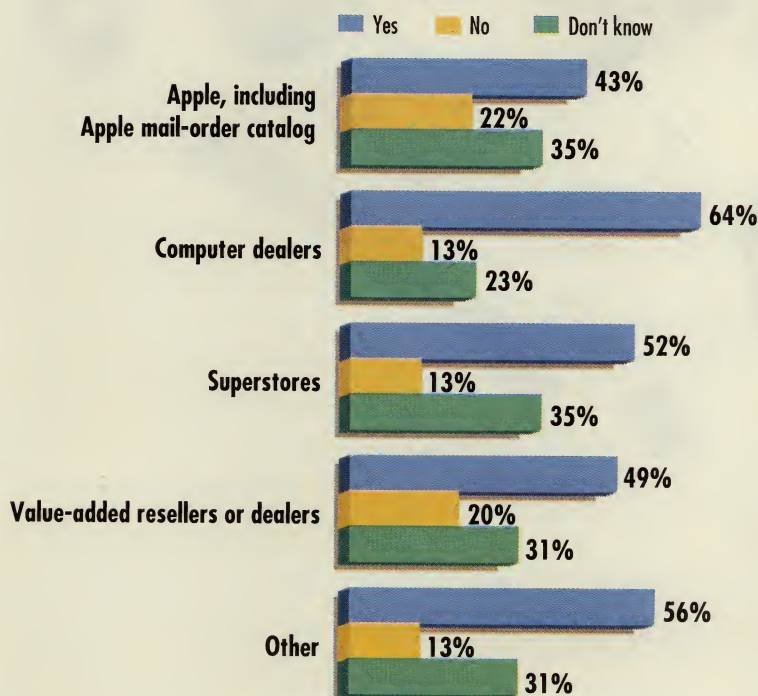
Average time sites waited to receive recent orders from ...



Base: Purchased in past three months

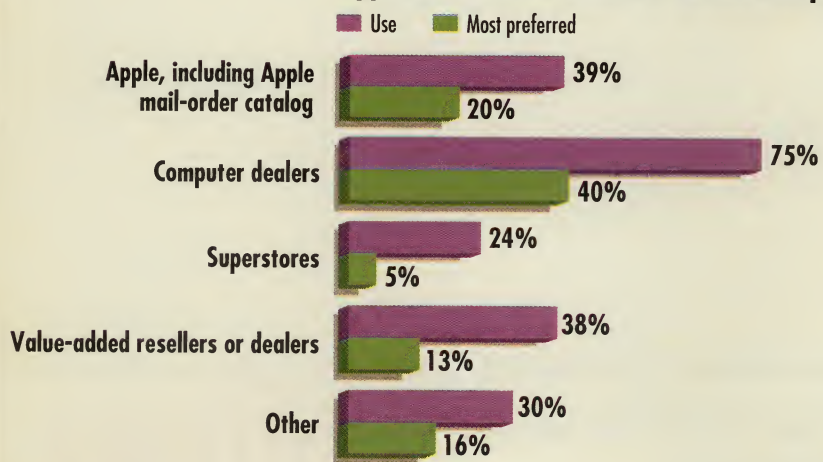
* Exceeds average acceptable maximum delivery time of 19 days

Acceptability of time spent waiting by source



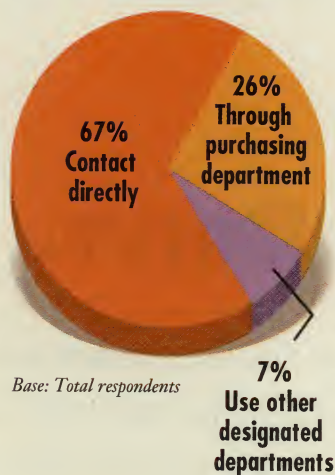
Base: Purchased in past three months

Types of vendors used for Macintosh purchases



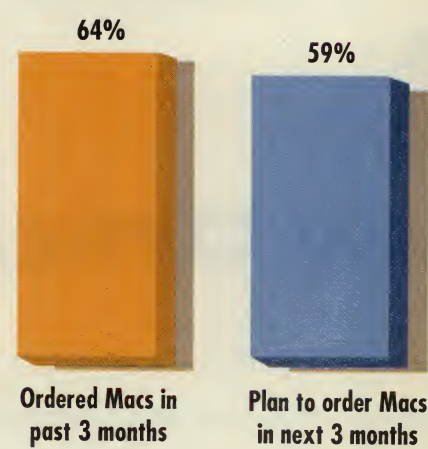
Base: Total respondents

How buyers order Macs



Base: Total respondents

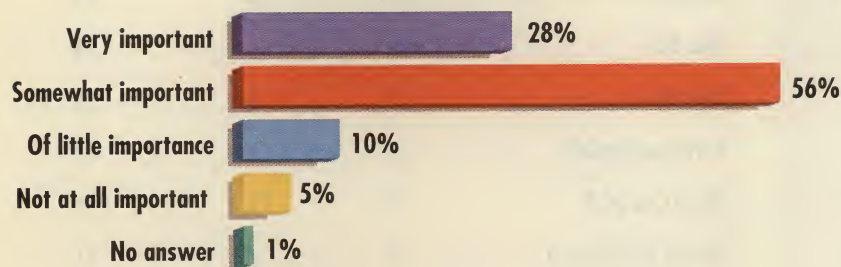
Site purchase profile



Base: Total respondents

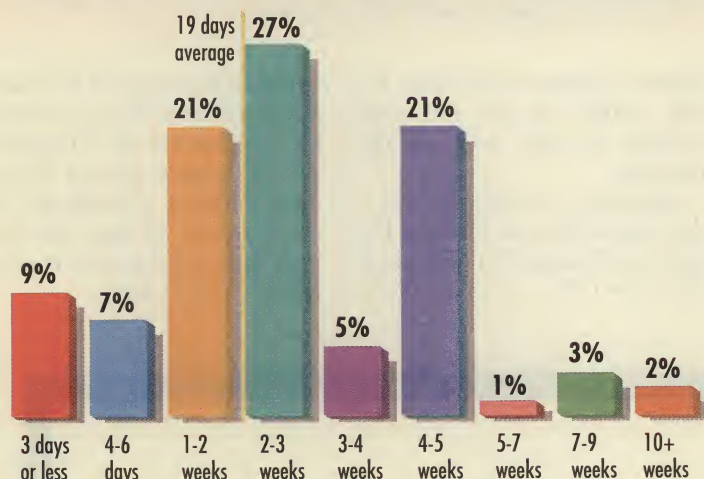
The QuickPoll was conducted by telephone among 150 randomly selected business locations that receive MacWEEK. Interviews were conducted in December 1992 with people identified as purchasers of Macs for their work location. Market Probe International, an independent New York market research firm, was responsible for all survey operations. Procedures followed established market research standards.

Importance of delivery time when making a Macintosh purchase decision



Base: Total respondents

Acceptable maximum delivery times of new Macintoshes



Base: Total respondents

Where managers buy Macs

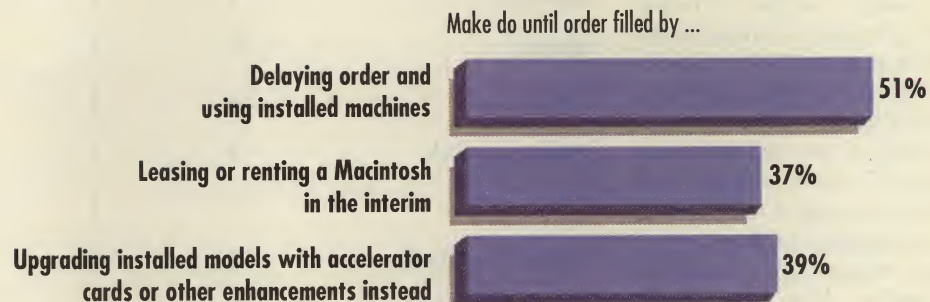
Mac managers combine hands-on involvement in their purchase sources with creative tactics to avoid delivery delays. It is not surprising, then, that the managers turn to a variety of suppliers to meet their Mac computing needs. On average, QuickPoll respondents ordered computers from three different channels.

Computer dealers were used most often, by 75 percent of the respondents. Four in 10 ordered directly from Apple; about the same percentage ordered Macs through value-added resellers. One in four ordered Macs from computer superstores. Thirty percent reported using other sources, such as university bookstores.

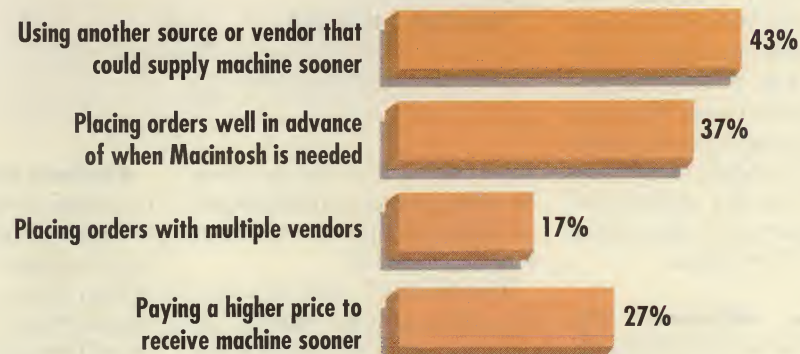
When asked to select the one source they prefer, the largest percentage of respondents (40 percent) picked computer dealers, followed by Apple (20 percent). "Other sources" were preferred by 16 percent, followed by VARs and value-added dealers (13 percent) and superstores (5 percent).

Many respondents said that computer dealers are "convenient and local." Dealers were seen as supplying quicker delivery and providing better service and support than other sources.

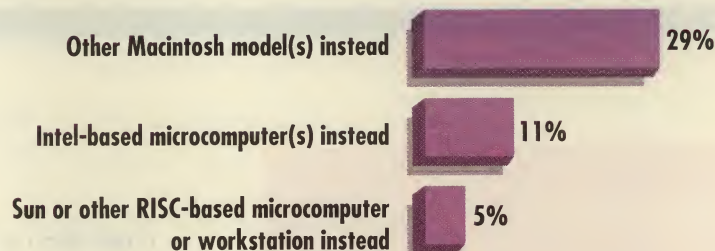
How delivery time has affected Macintosh purchases



Work with vendors by ...

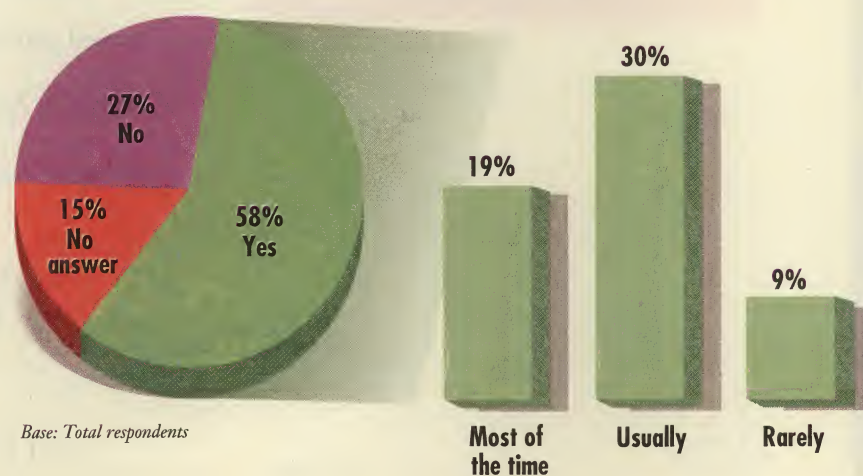


Ordered ...



Base: Total respondents

Success at getting vendor to speed up delivery



Base: Total respondents

QuickPoll

From Page 20

or most of the time, while 9 percent said they succeed only rarely, and an additional 27 percent said they do not succeed in getting vendors to speed up delivery.

Mac buyers said they influence vendors through a number of means, including turning to another source (43 percent), paying higher prices to receive their order more quickly (27 percent) or placing orders with multiple vendors (17 percent). More than one-third (37 percent), aware of possible delays, have placed orders well in advance of needing the Macs.

Most managers are prepared to wait, however. More than half (51 percent) have delayed their orders and used their installed machines. More than one-third (37 percent) have leased or rented Macs in the interim.

Some managers would rather switch than wait: Twenty-nine percent have ordered other Mac models that offer shorter delivery times. Fortunately for Apple, only 13 percent report that they ordered non-Mac computers rather than waiting for delivery of their Macs.

Purchase influence. The majority of survey respondents (84 percent) said that delivery time is

Macintosh models ordered in past three months

	Ordered (%)	Average number ordered	Average number received
Quadra 700 or 950	40	4	3
Mac IIvx	9	4	2
Mac IIci	39	6	6
Mac IIsi	34	7	6
Performa models	3	1	1
Mac LC or LC II	26	4	4
Classic or Classic II	12	6	6
Duo 210 or 230	10	5	2
PowerBook 170 or 180	33	3	3
PowerBook 145 or 160	18	2	2

Base: Purchased Macs in past three months

important to their Mac purchases. As a result, survey respondents generally have a hands-on involvement with their suppliers.

Two-thirds (67 percent) contact their Mac vendors directly; the remainder work with a purchasing department or other department.

Purchase plans. Nineteen days, on average, is what managers consider the acceptable maximum delivery time for Macs — and they expect delivery times over the next three months on new higher-end Macs to exceed these acceptable limits.

"I'm looking to place orders in

Plans to order Macintosh models in next three months

	Plan to buy (%)	Average number planned	Average expected delivery in days
Quadra 700 or 950	30	4	23*
Mac IIvx	12	6	23*
Mac IIci	19	4	14
Mac IIsi	17	6	15
Performa models	3	2	12
Mac LC or LC II	9	13	16
Classic or Classic II	3	7	11
Duo 210 or 230	12	4	31*
PowerBook 180	16	5	28*
PowerBook 145 or 160	8	3	27*

Base: Total respondents

*Exceeds average acceptable maximum delivery time of 19 days

advance because of availability. I'm still waiting on my 180s with no hope in sight," said one Mac manager.

Specifically, respondents project that delivery times for Quadras, IIvx machines, Duos and PowerBooks all will exceed this average, with the

largest delays expected for PowerBooks and Duos. Those planning to buy the Duo 230 or 210 expect an average delivery time of 31 days, those ordering PowerBook 180s expect to wait 28 days, and those ordering Quadras and IIvx machines expect to wait 23 days. □

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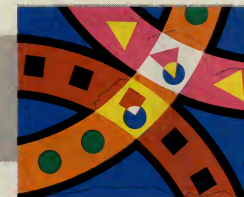
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Gateways

► Networking
► Communications



Apple unveils AURP-savvy router

New Internet Router debuts at NetWorld

By April Streefer

Boston — Apple last week at NetWorld 93 Boston introduced the long-awaited upgrade to its software router, which will be the first router to support the AppleTalk Update-based Routing Protocol.

The newly named Apple Internet Router, due next month, will cost \$499 — \$100 more than the AppleTalk Internet Router 2.0 it replaces. In addition to its basic task of routing AppleTalk traffic over multiple network cards or LocalTalk ports, the new version will support Apple's AppleTalk Update-based Routing Protocol (AURP) and a dial-up extension for connecting LANs over standard phone lines. Up-

grades from Version 2.0 are \$149.

Users will have to purchase a separate \$499 AppleTalk/IP Wide Area Extension, also expected to ship next month, to get tunneling over TCP/IP links or an Internet Protocol backbone.

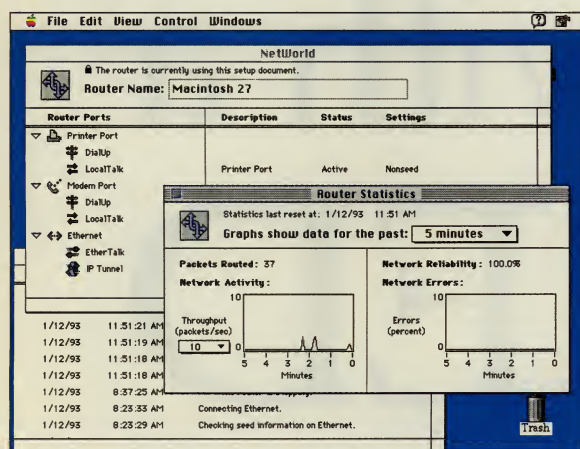
For X.25 connectivity, a \$1,299 extension is expected to be ready in March and will include MacX25 server software. Programming interfaces have been added that will permit future third-party extensions to tunnel AppleTalk over other protocols.

Instead of its desk accessory status under System 6, the new software router is an application. The basic router also will have an agent for SNMP (Simple Network Management Protocol), which will report data but not allow remote reconfiguration.

Some user sites may be dismayed that while the software router's use of AURP should reduce routing-table chatter in extended networks, any Phase 1 islands that have lagged behind in switching to Phase 2 will not be supported.

"I think we've been telling people since '91 that Phase 1 support wouldn't last forever," said Garry Hornbuckle, Apple's AppleTalk
See Router, Page 26

The Apple Internet Router will let users have multiple windows open to check router performance or configure a new router from within the software without having to restart.



CommForce pumps out net faxes

By Robert Hess

West Des Moines, Iowa — CommForce L.C., a joint venture of 4-Sight International Ltd. and CE Software Inc., last month released its high-volume network fax software.

Available in Europe since 1990, the 4-Sight Fax package includes both a multiline network fax server and fax gateways for sites already running Microsoft Mail or CE's QuickMail. Client software includes a printer driver and a fax-management desk accessory.

CommForce claims a dedicated 4-Sight Fax server can handle as many as 400 faxed pages per hour through the use of NuBus serial-port cards and up to eight fax modems.

Version 2.4, the current release, provides a variety of methods for users to switch temporarily from their usual printer drivers to the 4-Sight Fax driver. The package includes macro sequences for CE Software's QuickKeys, an Fkey and System 7-savvy miniapplications onto which users can drag and drop documents.

After sending a fax, a user can track its progress and even change its parameters until it has been received successfully.

Incoming faxes can be printed from the server or routed manually by an administrator to the appropriate recipient via electronic mail or the 4-Sight Fax software. Users can view received faxes with 4-Sight's Drop Viewer or pass them via Apple events into optical character recognition applications for interpretation. Both incoming and outgoing faxes may be archived for later retrieval.

Pascal and C application programming interfaces and externals for ACI US Inc.'s 4th Dimension will be made available so programmers can incorporate faxing into their programs.

4-Sight Fax's pricing is based on the number of fax modems used by the server, and multiline configurations include serial-port cards. Pricing starts at \$3,995 for a single-line version and goes up to \$24,995 for eight lines. In the second quarter, the company plans to release a version of the product with user-based pricing.

Circuit Research Corp. of Nashua, N.H., also markets 4-Sight Fax bundled with its FlexFAX modems. CommForce L.C. is at 1801 Industrial Circle, P.O. Box 65340, West Des Moines, Iowa 50265. Phone (515) 224-0211; fax (800) 448-3299. □

NUTS cracks open full-motion teleconferencing

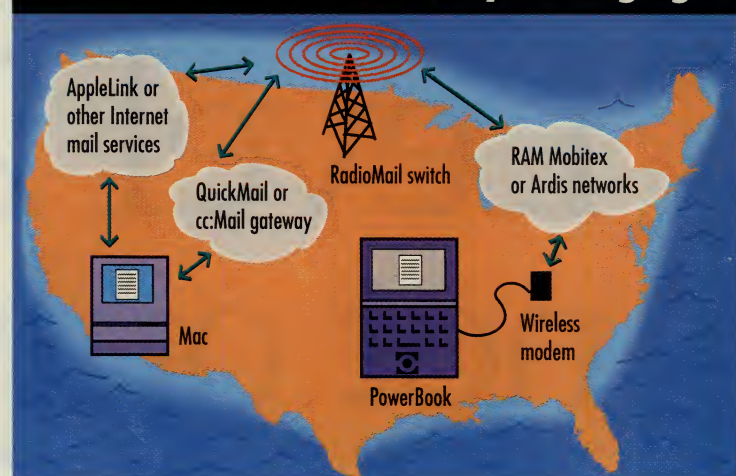
By Nathalie Welch

Hong Kong — NUTS Technologies Ltd. this month announced a teleconferencing system offering full-motion video and 16-bit color that will connect Macs and IBM PCs and compatibles.

The \$5,500 Hello 918 Desktop Video Conferencing System, due in March, will provide full-motion video at 30 frames per second over ISDN (Integrated Services Digital Network) or 64-Kbps telephone lines and can operate over standard analog telephone lines with reduced image quality, according to the company. It will support JPEG (Joint Photographic Experts Group) and MPEG (Motion Picture Experts Group) image compression and proprietary compression technologies.

Hello 918, which will offer three-way conferencing, will present the user with two video windows, each with a resolution of 176 by 144 pixels. The videoconferencing system

RadioMail delivers two-way messaging



NEVIN BERGER

RadioMail links the Internet to Ardis, Mobitex wireless nets

By April Streefer

Menlo Park, Calif. — A new wave in two-way wireless messaging will emerge next month when RadioMail Corp. unveils Macintosh client software and E-mail gateways for Ardis and Mobitex networks.

RadioMail's system, due to be announced in February at Mobile-93 in San Jose, Calif., and to ship in the second quarter, starts with individual RadioMail accounts,

accessible via the Internet, and Mac software so roaming PowerBook users can hook up and read their mail. The company also sells direct LAN-to-LAN gateway services for Lotus Development Corp.'s cc:Mail and CE Software Inc.'s QuickMail.

Mobile users also will need to buy \$1,350 to \$1,750 wireless modems from either Motorola Inc. or Ericsson
See RadioMail, Page 26

also will offer file transfer, still-image capture and the ability to interactively share an eight-bit-color drawing board. It also will be able to create QuickTime movies.

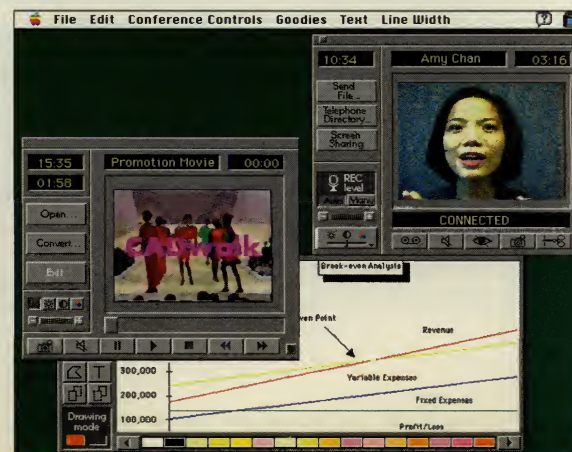
Hello 918 will include a phone directory with auto-dial and automatic redial, and a log book that records the duration of the conference and calculates the cost for the user.

The system will run on a Mac IIci

and above and will video teleconference with a 386 PC or above running Microsoft Windows.

Each Hello 918 system will contain a compressor-decompressor board, camera, speaker, communications adapter and cabling.

NUTS Technologies Inc.'s U.S. office is at 101 Metro Drive, Suite 750, San Jose, Calif. 95110-1342. Phone (805) 379-4209. □



NUTS Technologies will offer three-way conferencing in 16-bit, full-motion video at 30 frames per second over ISDN or 64-Kbps lines.

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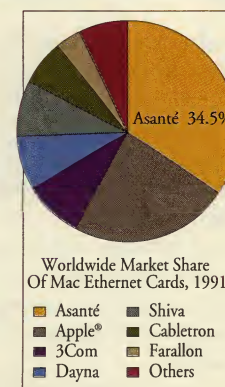
In addition, the Asanté family features a full line of non-intelligent 10BaseT hubs with 8 or 12 ports. And the widest range of

award-winning cards providing Ethernet connectivity for every Macintosh platform—including solutions that will let you connect to future generations of Ethernet.

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Pacer upgrades BBS, emulation package

PacerTerm improves scripting, SoftKeys

By Nathalie Welch

La Jolla, Calif. — Pacer Software Inc. is prepping updates to PacerTerm, its communications application, and PacerForum, its bulletin board and conferencing software.

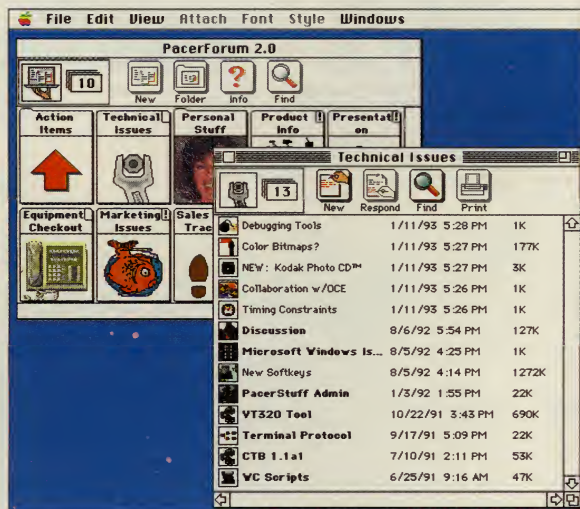
Both packages are scheduled to ship in March. Prices will remain at \$249 for PacerTerm 2.0 and \$549 for the PacerForum server and five clients.

► **PacerForum 2.0.** A bulletin board system for AppleTalk LANs, the revised PacerForum will let users construct personal folders on their hard disks made up of groups of bulletin boards. A new ability to post aliases will keep server disk space clear when users post messages containing large attachments, such as QuickTime files.

Users will be able to sort bulletin boards and topics by icon, title, size or most recent posting. Users can access any font or size through the font menu and delete their last response if it is the final topic entry.

► **PacerTerm 2.0.** Based on Apple's Macintosh Communications Toolbox, the terminal-emulation package will incorporate improved SoftKeys macros that let users assign color icons, with titles, to scripts. Another interface improvement will let users point and click on tool names located in the terminal-emulation window to bring up settings dialogs.

Scripting improvements will include new terminal-emulation



PacerForum 2.0 will let users sort and list bulletin boards using a variety of criteria and create personal folders on their hard disks made up of groups of bulletin boards.

window properties to control size and location of windows.

Enhancements to the program's VT320 emulation include a tall-screen mode supporting up to 127 lines.

Customers who purchased PacerForum 1.0 before Jan. 1 will be able to

get a five-pack upgrade for \$109.95 or a 25-pack for \$399.95. Those who purchase Version 1.0 after that date will be able to upgrade for \$14.95.

Pacer Software Inc. is at 7911 Herschel Ave., Suite 402, La Jolla, Calif. 92037. Phone (619) 454-0565; fax (619) 454-6267. □

InterCon takes control of UUCP

By Nathalie Welch

Herndon, Va. — InterCon Systems Corp. this month became the exclusive marketer of uAccess and uAccessLite, the UUCP network-communications software developed by ICE Engineering and previously distributed by Griffin Software Systems Technologies Inc.

Now called UUCP/Connect, the package includes a \$395 host and a \$295 client. Both programs use UUCP, or Unix to Unix Copy Program, protocols to communicate

with an Internet node, enabling Mac users with Internet accounts to read news groups and share Internet mail.

The programs also communicate with each other over AppleTalk LANs via ADSP (AppleTalk Data Stream Protocol). The client portion of UUCP/Connect can be used over AppleTalk as a client to a UUCP/Connect host and otherwise is missing only administration features. Both versions support MacBinary file transfers and can be run in the background, notifying users whenever a piece of Unix mail arrives.

InterCon Systems Corp. is at 950 Herndon Parkway, Herndon, Va. 22070. Phone (703) 709-5500; fax (703) 709-5555. □

RadioMail

From Page 24

GE Mobile Data Inc. These devices let users access RadioMail accounts via Ardis Co.'s Ardis or RAM Mobile Data Inc.'s wireless networks. The modems shipped last year, but controlling software has been available for DOS-based laptops only.

The client software, based on Eudora, a shareware program for Internet mail, will let users compose and send mail back through the wireless networks.

"Just like the telephone system, where it doesn't really matter through which switches you are connected, we want to put all the magic behind a curtain so users don't need to care which services they use to communicate," said Geoff Goodfellow, president of RadioMail.

Once an account has been set up, LAN users will need to know only a roaming colleague's RadioMail address to forward messages from

office E-mail systems, the Internet, MCI Mail, AppleLink or other services.

Wireless accounts purchased through RadioMail will cost \$99 each, plus a monthly network charge of \$89 for sending and receiving up to 100 messages of 50 words and 29 cents per 50-word message over the base 100. Sending and receiving graphics or other data-intensive files will be very expensive, RadioMail said.

Dial-up accounts for LAN electronic-mail gateways cost a minimum of \$30 per month, plus a \$50 setup fee.

The company said it also will offer a news headline service compiled from a variety of business wires, where each news message will be deducted from the monthly 100-message allotment.

RadioMail Corp. is at 1055 Pine St., Menlo Park, Calif. 94025. Phone (415) 328-5615; fax (415) 322-1753. □

Router

From Page 24

evangelist. "This product demonstrates that people who want to enjoy AURP's new features will have to go to Phase 2."

Three vendors were on hand to announce AURP support in their existing products: Neon Software Inc. in its RouterCheck program, MultiAccess Computing Corp. in its Switched Multimegabit Data Service adapter and Cabletron Systems Inc. in its just-shipped Fiber Distributed Data Interface adapter.

Simultaneously with the product announcements, Apple pledged it soon will submit AURP for review and comment to a recently formed group of router vendors and network managers called the AppleTalk Networking Forum. □



Gateways

BRIEFS

PSI fax software to incorporate OCR, fax controls

Campbell, Calif. — PSI Integration Inc. next month will begin shipping fax software with integrated optical character recognition capabilities and fax machine controls with all of its modems.

FAXcilitate incorporates OCR technology from Caere Corp. that lets users select the Save As command to convert faxes into a variety of word processing and spreadsheet formats.

FAXcilitate places a fax menu on the right side of every application's menu bar; it also can be accessed via the Finder. Users also can send faxes without opening an application with a feature called RapidFax.

Upgrades are \$49.95; customers who purchased a PSI modem after Nov. 1, 1992, can upgrade free.

PSI Integration Inc. is at 851 E. Hamilton Ave., Suite 200, Campbell, Calif. 95008. Phone (408) 559-8544 or (800) 622-1722; fax (408) 559-8548.

PhonePro adds fax, modem functions to palettes

Sunnyvale, Calif. — PhonePro 1.1, Cypress Research Corp.'s icon-based telephony-application builder for the Mac, now lets users add fax and modem functions to its applications.

Priced at \$950 and available now, PhonePro 1.1 contains a Modem palette with eight icons that let application developers create electronic bulletin boards, on-line customer support and electronic information services.

A Fax palette contains four new icons that let application developers create fax-on-demand applications, such as letting telephone callers select documents they wish to have faxed to them.

Cypress Research Corp. is at 240 E. Caribbean Drive, Sunnyvale, Calif. 94089. Phone (408) 752-2700; fax (408) 752-2735.

PhoneTalker 2 Line gives Mac phone control

Reno, Nev. — THOR Manufacturing this month shipped a two-line version of its Mac-controlled telephone.

Although PhoneTalker 2 Line is not a modem, it can dial calls, answer the phone, put callers on hold and hang up under Mac control. The \$199 device is based on the single-line PhoneTalker III, which shipped last summer. An included database lets users look up phone numbers and dial; other applications also can dial using Apple's Macintosh Communications Toolbox.

Users of the original PhoneTalker can upgrade to a new version supporting inbound touch-tone recognition for \$59 (free for the PhoneTalker III) or \$99 for the two-line version. A \$39 option board for any one- or two-line PhoneTalker III adds Caller ID support.

THOR Manufacturing is at P.O. Box 10108, Reno, Nev. 89510-0108. Phone (702) 324-6600 or (800) 346-4694; fax (702) 324-7700.



New EtherPrint-3. Maximum Flexibility For Printing On Ethernet Networks.

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any LocalTalk printer directly to any Ethernet network. And for the ultimate in flexibility, EtherPrint-3 Plus connects up to four printers or other LocalTalk devices, with no setup or configuration required.

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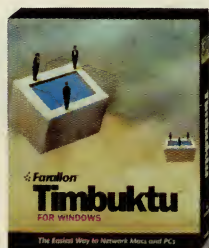
Cross platform

New Timbuktu is the easiest way to network Macintosh and Windows

New Timbuktu for Windows 1.0

- Lets you connect to AppleTalk printers and AFP servers.
- You can "browse" network resources with a Windows "Chooser."
- High-performance file exchange and full 24-bit screen sharing.
- Supports over 25 network cards for Ethernet, LocalTalk & Token Ring.
- File name mapping between Macs and PCs.
- Multi-level password security.

- Supports memory managers including DOS 5.
- Extensive on-line help.
- Timbuktu for Windows PhoneNET® kit includes LocalTalk for ISA or MCA.



New Timbuktu for Macintosh 5.0

- High-performance file exchange and full 24-bit screen sharing.
- New connection documents automatically re-establish frequently used connections.
- Backward compatible with previous versions of Timbuktu.
- Dial-in support over Apple's AppleTalk Remote Access or Farallon's Liaison™ Internet Router. (Not included.)
- Multi-level password security.
- Takes full advantage of Apple System 7.
- Extensive on-line help, including Balloon Help.



Moving information between Macintosh® and Windows™ computers used to be quite a feat of skill. Let alone nerves.

But now there's Farallon's new Timbuktu® for Macintosh and Windows.

Timbuktu is the easiest way to create a cross-platform peer-to-peer network. So now, whether you're on a PC or Mac, you can share expensive peripherals like printers and file servers. And share or exchange files between cross-platform applications like word processors, spreadsheets and databases.



orms easily.

dows computers, so you can share printers, files and screens.

Plus, Timbuktu goes beyond basic network services, giving you a unique benefit—remote control. It can send a real-time, full-color picture of your screen over the network so you can control and view it from another Mac or Windows PC.

That means you can use your network for new things. Like collaboration and user support.

Of course, Timbuktu is easy to use and install. All you need is a copy of the software on each machine.



(Multi-packs are available.) There's no need for a dedicated gateway or server.

So it's a cost-effective solution.

Since it's based on standards, Timbuktu works with what you've got. Including more than 25 ODI compatible network interface cards for Ethernet, LocalTalk and Token Ring.

And it's the only cross-platform peer-to-peer solution that can co-exist with other

server-based networks, so you still have access to corporate resources on AppleShare, NetWare or TCP/IP.

It's everything you'd expect from a company with more than seven years of experience and four million users.

See for yourself why Timbuktu is the easiest way to network Macs and PCs.

Call today. We'll send you a free full-color copy of our product guide. It's that easy. **1-800-949-7761.**





Kodak makes ColorSense of hues

KEPS, Kodak systems hook into ColorSync

By Matthew Rothenberg

Rochester, N.Y. — Eastman Kodak Co. this month shipped ColorSense, its hardware and software color-management system.

ColorSense, available now for \$499, comprises a photometer that measures luminance of monitors and corrects them to a specified

white point and gamma curve; a target image for calibrating scanners; device profiles of color peripherals; and color-correction software.

The software includes a system extension that simulates printed output in all QuickDraw applications and lets users choose among a range of output simulations. ColorSense also adjusts the screen to simulate viewing conditions such as daylight, Kodak said. A batch feature converts multiple images from one color space to another.

ColorSense, which is based on CIE (Commission Internationale de l'Eclairage) standards, supports RGB (red, green, blue), TIFF and PICT2 formats. It also reads Kodak Photo CD images at five resolutions, and it can rotate and mirror Photo CD graphics.

In addition, the ColorSense color-matching method works with ColorSync, Apple's new system extension for device-independent color (see MacWEEK, Jan. 11).

In other ColorSync news, KEPS Inc. this month announced a new version of its KEPS Precision Color Management System that will support the Apple technology.

KEPS, a Kodak company, said DayStar Digital Inc. of Flowery Branch, Ga., will integrate KEPS Precision CMS with DayStar's line of accelerator boards to speed color matching and separation.

Aldus Corp. of Seattle also will integrate the KEPS software into a variety of applications, including PageMaker 5.0, PhotoStyler 2.0, Persuasion and FreeHand. KEPS Precision CMS-compatible upgrades will begin shipping from Aldus by the middle of this year, according to KEPS.

Eastman Kodak Co. is at 901 Elmgrove Road, Rochester, N.Y. 14653. Phone (716) 724-4000 or (800) 344-0006; fax (716) 726-3758.

KEPS Inc. is at 164 Lexington Road, Billerica, Mass. 01821-3984. Phone (508) 667-5550; fax (508) 670-6550. □

The Valis Group's Flo' lets users stretch, scale, rotate and distort 2-D images with no degradation of image quality.



Images Flo' in Valis Group program

By Carolyn Said

Point Richmond, Calif. — The Valis Group this month released Flo', a new program that promises to turn Mac images into "digital rubber canvas."

The \$199 application lets users stretch, scale, rotate and distort images without degrading their quality. Flo' users also can record a sequence of distortions to create animations.

"Flo' lets us do in one step what would have taken hours to do by hand in [Adobe] Photoshop," said Michael Abrams, a consultant at MACConsulting Inc. of Glendale, Calif. Abrams said he finds the program particularly useful for animations. "Instead of using our Sun [Microsystems Inc.] systems to do a rendering of an item spinning, we can use Flo' to do a rotation. It's a great timesaver."

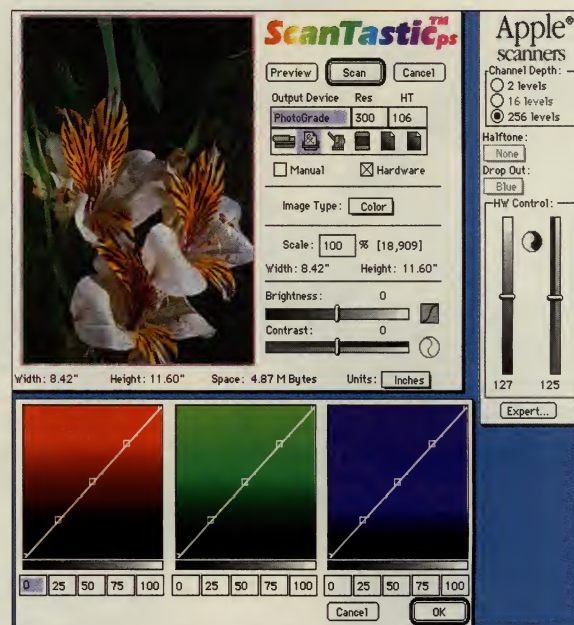
Flo' users create animations by selecting a starting and ending frame; the program automatically generates as many in-between distortions as the user specifies. Users can save the frames as a PICS file and play them back in a

QuickTime-capable application.

The Valis Group trademarked the word "plasticity" to describe the program's ability to treat 2-D images as if they were on a flat sheet of pliable plastic. The company said Flo' differs from other image-manipulation programs in several ways. Its free-form interface lets users select areas to distort with a lasso and then simply manipulate them; most other programs assign control points to the outline of an image. Rather than stretching pixels, Flo' remaps them, preventing image degradation and leaving unedited parts of the image unchanged, the company said.

Flo' users can work on low-resolution versions of high-resolution images; when they are satisfied with their edits, they can apply the transformations to the high-resolution version automatically. Flo' also lets users save files as PICT and TIFF documents.

The Valis Group is at P.O. Box 422, 1001 W. Cutting Blvd., Point Richmond, Calif. 94807-0422. Phone (510) 236-4124; fax (510) 236-0388. □



The latest version of Second Glance's ScanTasticps plug-in module lets users modify hardware defaults of the Apple Color OneScanner, such as brightness, contrast, color correction and gamma curve.

Products boost Apple's color line

By Matthew Rothenberg

San Francisco — Products that extend the functionality of Apple's new color-imaging line made their debuts at this month's Macworld Expo here.

► **Second Glance** is shipping a version of its \$99 ScanTasticps Photoshop plug-in that works with Apple's new Color OneScanner. The new module lets users modify hardware defaults of the Apple scanner to adjust brightness, contrast, color correction and gamma curve.

ScanTasticps also takes advantage of the scanner's auto-balance controls, which adjust the voltage picked up by the CCD (charge-coupled device) sensors to create a better image balance than other

color flatbed scanners. Other software packages, including the version of Light Source Inc.'s Ofoto that ships with the scanner, reportedly do not take advantage of this feature of the Color OneScanner.

ScanTasticps also ships with ScanTastic DA and ScanTasticXT, a QuarkXTension.

► **Expertec Corp.** announced a PostScript-compatible hardware RIP (raster image processor) for the Apple Color Printer, which lacks a controller or PostScript interpreter.

The \$2,295 PhotoScript-24 is a NuBus card that features a 25-MHz Weitek 8220L RISC chip and 16 Mbytes of RAM, expandable to 48 Mbytes. It also includes a proprietary PostScript Level 1 interpreter; 35 Type 1 fonts; and SCSI, serial and parallel interfaces.

► **ColorAge Inc.** announced Freedom of Press Light 3.0.5, an update that adds PostScript compatibility to a variety of printers, including Apple's new color model.

The latest version of CAI's PostScript-compatible software RIP also supports Apple's new StyleWriter II; Hewlett-Packard Co.'s DeskWriter 550C, DeskJet Portable and PaintJet XL300; and GCC Technologies Inc.'s C-size WideWriter 360.

ColorAge Inc. is at 900 Technology Park Drive, Billerica, Mass. 01821. Phone (508) 667-8585; fax (508) 667-8821. Expertec Corp. is at 340 N. Main, Suite 304, Plymouth, Mich. 48170. Phone (313) 451-2272; fax (313) 451-9515. Second Glance is at 25381-G Alicia Parkway, Suite 357, Laguna Hills, Calif. 92653. Phone (714) 855-2331; fax (714) 586-0930. □

FontMonger update, FontMixer let users mix and mangle type

By Kirsten L. Parkinson

San Francisco — Font fans who want to tune up their typefaces now can turn to Monotype Typography Inc.'s FontMixer utility and an upgrade of Ares Software Corp.'s FontMonger.

► **FontMonger 1.5.** The \$149.95 upgrade to Ares' font-manipulation application adds drawing tools and improved conversion features (see MacWEEK, Oct. 26, 1992). The new tools let users draw, skew, rotate and merge characters. The program also lets users convert fonts to and from TrueType, PostScript Type 1 and Type 3, and Nimbus Q formats.

"I was delighted to see that there are drawing tools," said Norm Caryl, founder of Caryl International Corp., a technical-publications consulting company based here.

"I had created several typefaces using the earlier FontMonger," Caryl said. "I used Illustrator to create the drawings and then import them into FontMonger," which meant that he had to maintain separate Illustrator files for each character.

"The drawing tools will make it much easier to create fresh faces directly in FontMonger," Caryl said.

Upgrades are \$49.95; users who See Type utilities, Page 32

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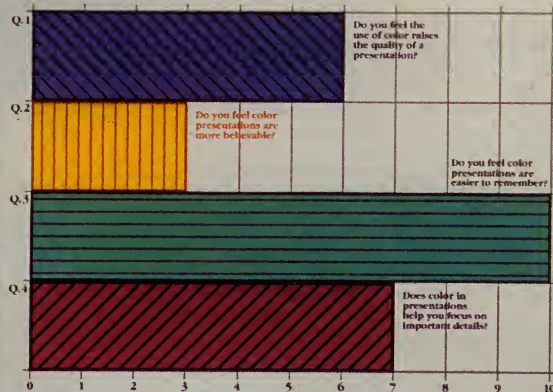
Effective marketing has one very simple objective. To focus positive attention on your product or service. One of the more popular ways to accomplish this is through presentations. Many people have found that the use of color in presentations is an excellent way to maximize their impact.

Printed below are the results of an informal survey to determine the effectiveness of color in marketing presentations.

They are intended only to provide examples of kinds of color output that can be generated. And to offer inspiration for those looking to add strength to their marketing efforts.

Participants were asked to respond to the questions on a scale of one through ten, with one representing "no, strongly disagree" and ten representing "yes, strongly agree". The results were then tabulated and an average was generated, represented in the horizontal graph columns below.

Results of color impact survey:



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Linker brushes up Animation Stand

Version 2.1 offers auto-painting tool

By Neil McManus

Irvine, Calif. — Linker Systems Inc. is adding automatic painting to the cast of features of The Animation Stand, its high-end animation program.

Version 2.1 of the program is due this month for \$3,000. After a user paints the first cel of an animation, the new version indicates how it will paint the next cel automatically. The user can modify the indicators before the program auto-paints the cel.

The auto-paint feature also will work in batch mode, allowing the user to define the areas to be painted in a series of cels.

The new version will be able to produce full-color animations and a mask tape from a single exposure sheet. It will generate both positive and negative masks.

The program offers multiplane camera controls with trucks, zooms, pans, rotation, squash and stretch. It lets users create special effects with



The Animation Stand 2.1 includes a feature that indicates how it will auto-paint each cel. Users can move the indicator diamonds before the program paints the cel.

mattes, faders, gels, glows, drop shadows and transparencies. Animations can be output to film, tape, videodisc or as QuickTime movies.

Linker Systems already is preparing a version of the program that will take advantage of Apple's upcoming QuickDraw GX imaging system, due later this year. This version will generate images using subpixel resolution and motion in the same time it takes Version 2.1 to create standard images, Linker said. The GX version also will offer faster rotations and special effects, the company said.

Users of The Animation Stand 2.0 can upgrade to Version 2.1 for the price of shipping and handling. Version 1.3 users can upgrade for \$500.

Linker Systems Inc. is at 13612 Onkayha Circle, Irvine, Calif. 92720. Phone (714) 552-1904; fax (714) 552-6985. □

TechPool releases graphics converter

By Robert Hess

Cleveland — TechPool Software is now shipping Transverter Pro, a cross-platform graphics converter with a built-in PostScript interpreter.

Transverter Pro converts between Windows, OS/2, DOS, NeXT and Unix formats, including CGM (Computer Graphics Metafile) and Adobe Illustrator and Aldus Free-Hand Encapsulated PostScript files.

Users output a file for translation by printing to disk in PostScript format. Transverter Pro uses the output file as the basis for translation to a new format.

Because Transverter Pro comes with a PostScript-compatible interpreter capable of performing vector file conversions, files translated to another format are resolution-independent. This ensures high-quality output regardless of the destination device.

Other products, such as ColorAge Inc.'s Freedom of Press and TeleTypesetting Co.'s T-Script are RIPs (raster image processors), which convert PostScript data into bit maps or raster information for printing. Transverter Pro also can act as a RIP.

Transverter Pro includes an EPS Preview for Macintosh users and a TIFF Preview for Windows users, and it supports Type 1 and Type 3 font formats, as well as Adobe Type Manager.

TechPool Software is at 1463 Warrensville Center Road, Cleveland, Ohio 44121-2676. Phone (216) 291-1922; fax (216) 382-1915. □

Radius publishing pack features 24-bit color, multiprocessing '040

By Neil McManus

San Jose, Calif. — Radius Inc. this month introduced its Radius Professional Publishing Pack, a system that combines a 24-bit graphics board with a 68040 accelerator and parallel-processing software.

The Publishing Pack, priced at \$3,999, includes the company's PrecisionColor 24X display card, the Radius Rocket 33 accelerator and RocketShare multiprocessing software. The bundle represents a \$1,000 savings over the combined retail price of the products.

The PrecisionColor 24X NuBus card provides 24-bit color for displays of up to 21 inches. It uses a custom application-specific integrated circuit to accelerate QuickDraw by as much as 600 percent, Radius said. It also can achieve performance boosts up to 100 times when combined with the Rocket 33, the bundled '040 accelerator.

RocketShare, a System 7 exten-

sion, provides true multiprocessing and multitasking on Macs equipped with one or more Radius Rockets. Under RocketShare, each Rocket acts as an additional CPU that is launched independently of the Mac's processor. This allows for multitasking, such as rendering a 3-D image on the Rocket while simultaneously working on a page layout in QuarkXPress on the Mac.

Radius this month also announced that it is collaborating with Mountain View, Calif.-based Digital F/X Inc. to develop parallel-processing software to accelerate Adobe Photoshop 2.5. The software, due this spring, will work in Macs equipped with the Rocket 33, RocketShare and the Radius DSP Booster, an \$899 digital signal processing daughter-board for the Rocket.

Radius Inc. is at 1710 Fortune Drive, San Jose, Calif. 95131. Phone (408) 434-1010; fax (408) 434-0770. □

Type utilities

From Page 30

purchased FontMonger 1.0 after June 30, 1992, can upgrade free.

► **FontMixer.** Monotype's new utility, available now for \$79, lets users create customized Type 1 fonts by combining characters from different typefaces.

With FontMixer, users can reassign character keystrokes or mix characters from different fonts. For example, someone who uses a particular Zapf Dingbat frequently can assign it a keystroke from within Palatino for quick access.

New keystrokes can be assigned to characters individually or as a group using FontMixer's built-in templates. FontMixer comes with Monotype's Times New Roman Superfont, which

comprises more than 400 characters.

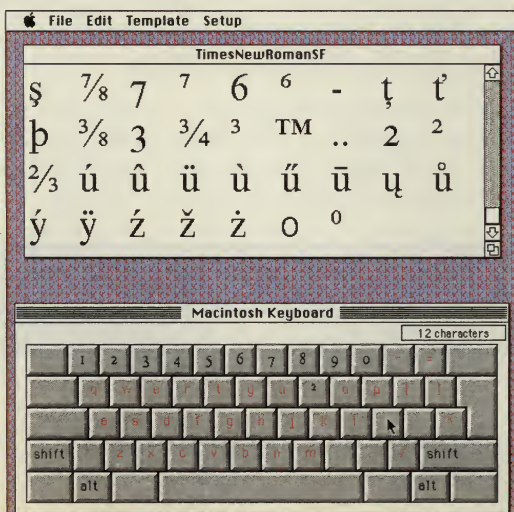
Monotype this month also announced Funfonts, a \$39.99 collection of 25 art, text, headline and script fonts. Funfonts will be available next month in the user's choice of Type 1 or TrueType format.

Monotype this month also released the \$49 Monotype Classic Fonts Volume 1187, which includes TrueType versions of Arial, Courier New, Symbol and Times New Roman faces.

Ares Software Corp. is at 561 Pilgrim Drive, Suite D, Foster City, Calif. 94404. Phone (415) 578-9090; fax (415) 378-8999.

Monotype Typography Inc. is at 53 W. Jackson Blvd., Suite 504, Chicago, Ill. 60604. Phone (312) 855-1440 or (800) 666-6897; fax (312) 939-0378. □

Monotype's FontMixer lets users reassign keystrokes to any character, such as this superscript 2 that has been assigned to the "i" position on the keyboard.



Avid unbundles video editor

By Erik Holsinger

Tewksbury, Mass. — Avid Technology Inc. has announced relatively inexpensive digital nonlinear video-editing alternatives.

The Avid Media Composer Model 210 is a \$15,000 unbundled version of the company's nonlinear editing system. According to Avid, the 210 software and Avid hardware are identical to its Model 220, which lists for \$24,900.

The 220 comes bundled with a Mac IIci, 16 Mbytes of RAM, an 80-Mbyte hard drive, two 14-inch color monitors and a phase-change optical drive.

The 210 comes with JPEG (Joint Photographic Experts Group) compression, Audio Media II and video digitizer boards; all required cables; and the Media Composer software.

The user supplies a second Mac, which must be a IIci or better; speakers; at least one 1.2-Gbyte hard drive; and two monitors. Avid typically charges nearly full retail price on all Mac equipment bundled with its system.

The Model 210 is designed to create edit-decision lists (EDLs) for use in on-line video-editing suites, and it supports nearly all major EDL formats, including CMX,



Media Suite Pro now has two more audio tracks. Individual clips can be displayed in a thumbnail or miniature view.

Grass Valley Group and Sony.

The Model 210 offers two levels of image quality. In low-resolution AVR level 1, users can store up to two hours of full-screen, full-motion video material per gigabyte, while the higher AVR level 2 provides enhanced image resolution and better color.

Avid also cut the price of Media Suite Pro, its other unbundled nonlinear editing system, to \$9,995 from \$14,000. New features include Digital Video Effect transitions such as wipes and pushes, and an additional two tracks of audio. Media Suite Pro does not produce an EDL but is designed to edit video footage and output the final program directly to videotape (see MacWEEK, Aug. 3, 1992).

Avid Technology Inc. is at Metropolitan Technology Park, 1 Park W., Tewksbury, Mass. 01876. Phone (508) 640-6789; fax (508) 640-1366. □

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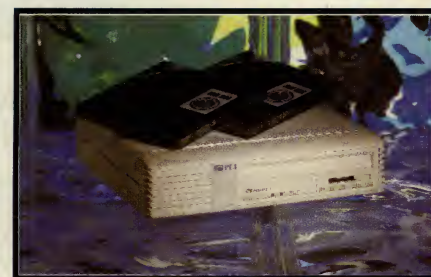
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MWK AD-65

Opcode turns MIDI into sheet music

By Kirsten L. Parkinson

Palo Alto, Calif. — Opcode Systems Inc. is cueing up a new low-end MIDI recording and music-notation program.

Musicshop is scheduled to ship in March for \$149. It will be Opcode's first product to present musical notation of recorded MIDI

(Musical Instrument Digital Interface) tracks. Musicshop users will be able to do simple editing, such as changing the pitch of a note, and print the changes in musical notation.

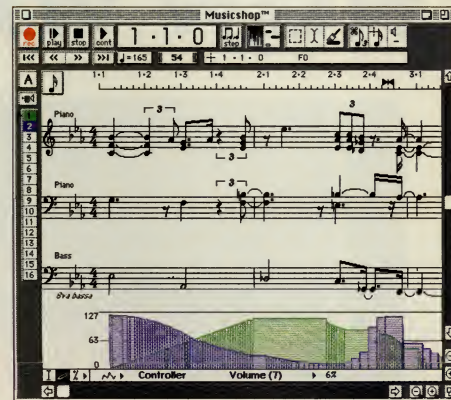
A print preview option will let users add titles, composer names and tempo information to the music before printing.

Musicshop also will provide an interface similar to a tape deck for recording and playing back MIDI tracks. A piano-roll view will let users perform detailed editing of the recorded track, including its rhythm and style.

The program will ship with Adobe Systems Inc.'s Sonata musical font.

The company this month also released OMS 1.2, a software upgrade that improves MIDI reliability on PowerBooks and Duos.

Without the improved OMS software,



Musicshop lets users record and play back MIDI tracks, then edit them in piano-roll or music-notation form.

PowerBooks often lose MIDI data during transfer, Opcode said. OMS 1.2 eliminates MIDI problems with the PowerBook's modem port, although compatibility problems with the printer port remain, according to the company.

OMS is included free with most Opcode products; current users of OMS can upgrade to Version 1.2 for \$29.95.

Opcode Systems Inc. is at 3950 Fabian Way, Suite 100, Palo Alto, Calif. 94303. Phone (415) 856-3333; fax (415) 856-3332. □

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Notes: Drag and Place support requires System 7. Image Convert inputs over 40 different file formats and outputs to PICT, TIFF, PCX, TGA and GIF. The Impace logo and Riffle are trademarks of and Kudo is a registered trademark of Impace Systems Corporation. QuickTime and the QuickTime logo are trademarks of Apple Computer, Inc., used under license. All other trademarks mentioned are property of their respective owners. Prices subject to change.

ModaCAD refurbishes its 3-D design line

Los Angeles — ModaCAD Inc. has released an update to its 32-bit rendering program as well as a furniture-design package.

► **Envision 4.3**, priced at \$1,995, maps new surfaces, highlights, shadows and contours onto images such as scanned photographs.

It features new light sources, including colored lights. Resolution of rendered images is limited only by users' input and output devices.

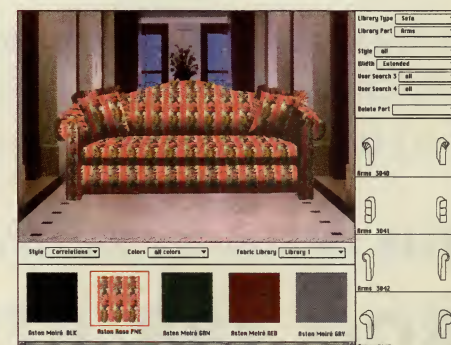
Envision users can upgrade for \$200 to \$1,500, depending on their version. The program requires a Mac II or higher with 16 Mbytes of RAM.

► **ModaFinity** uses scanned fabric, digital-video input and a library of parts to render furniture with photo-realistic fabric folds, pleats, shadows and highlights.

The package features video, music and slideshow capabilities, and it is compatible with most CAD and graphics programs, ModaCAD said.

It ranges in price from \$4,000 to \$6,000, depending on configuration.

ModaCAD Inc. is at 1954 Cotner Ave., Los Angeles, Calif. 90025. Phone (310) 312-6632; fax (310) 444-9577. □



ModaCAD's ModaFinity users can display photo-realistic renderings of furniture, such as this couch.

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News Analysis

New image databases adept at handling many large files

A variety of strong choices exist for cataloging images.

By Aileen Abernathy
The Mac's increased sophistication in handling complex graphics, animations and videos is a mixed blessing for users.

They value the capability to produce or acquire high-quality digital artwork, but they're frustrated by the organizational headaches and lost production time that result from trying to manage hundreds, even thousands, of images scattered across hard disks, floppies, CD-ROMs and SyQuest cartridges.

The need to organize scattered images has spurred the growth of new image-database products that help users organize and track graphics files. With list prices ranging from \$99 to \$999, these products fill a void between scrapbook utilities, such as MultiClip from

Olduvai Corp. of Miami, and pricey, vertical-market products, such as NewsPhotoAccess from AXS of Berkeley, Calif. (see MacWEEK, March 16, 1992).

Pent-up demand. "I need to archive local photographs, but I don't need the specialized wire-photo features or the \$9,000 price tag of NewsPhotoAccess," said Mike Middlesworth, business manager for the Honolulu Advertiser, Hawaii's largest newspaper.

After seeing an early version of AXS' midrange product, Image-Access, Middlesworth waited two years for Nikon Electronic Imaging of Melville, N.Y., to license it for commercial distribution. He said it was worth the wait. "At \$495, it's a hell of a bargain."

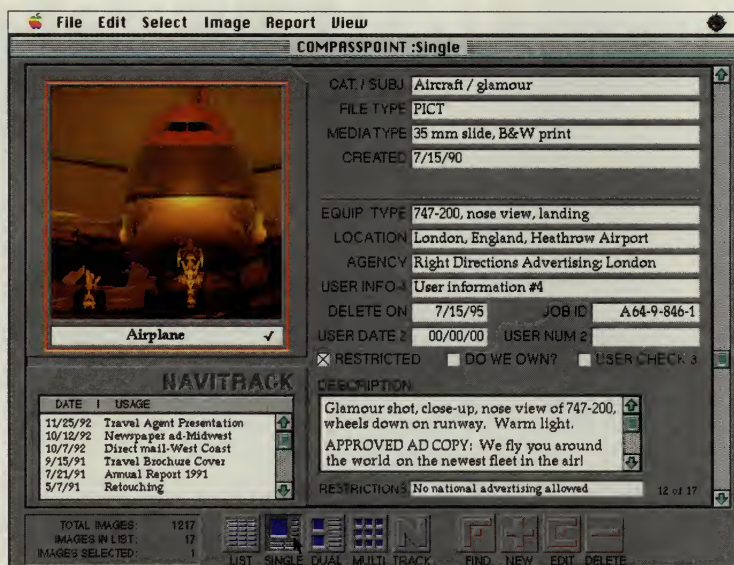


Image databases can store text information associated with a graphic, including file type, date, photographer and description. CompassPoint's NaviTrack system can even record when and where an image was previously used.

The driving force behind development of image databases is the rapid growth of digital photography and video. Computer-based photography, in particular, is expected to skyrocket with the widespread availability of Rochester, N.Y.-based Eastman Kodak Co.'s Photo CD system, which enables anyone to take a roll of 35mm film in for processing and get back a CD-ROM containing high-resolution digitized photographs.

Anticipating the deluge, Kodak next month plans to release Shoebox, a \$395 image database that supports all the Photo CD formats. Product Manager Hal McLendon said Kodak licensed the product from its developer, 21st Century Media of Seattle, because "people told us that Photo CD looks like a great resource but only if they can manage the contents."

Graphics glut. "We create up to 100 graphics for a single project, such as the Academy Awards show," said C. David Piña of Piña Design in Burbank, Calif., which produces show titles and graphics. "We can't remember where they all are or exactly what each image looks like."

To bring order to his graphics universe, Piña uses Fetch, a \$295 image database from Seattle-based Aldus Corp. that catalogs all types of files, including Encapsulated PostScript illustrations, scanned photographs, QuickTime movies and all Photo CD formats. Fetch can catalog up to 32,000 files at a time in the form of thumbnail previews that include pertinent details such as file name and type, location, and user-defined keywords (see MacWEEK, Dec. 7, 1992). Fetch users also can view larger previews of images, edit files in their original applications, and cut and paste between Fetch and other applications.

Finding and viewing images in Fetch takes just seconds, Piña said. "My reaction was, 'Why didn't anyone think of this before?'"

Artful management. Earlier attempts at image-management utilities, such as Mariah from Symmetry Software Corp. of Scottsdale, Ariz., worked fine for tracking text and clip art, but these programs stored the entire image in the catalog, a serious drawback in the age of multimegabyte image files and QuickTime movies.

Current image databases store only preview images and associated text, so a catalog of 200 images typically occupies just more than

SCREEN TEST

Clinton in print and on disc in time for inauguration

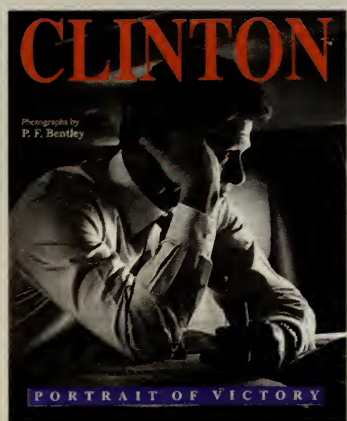
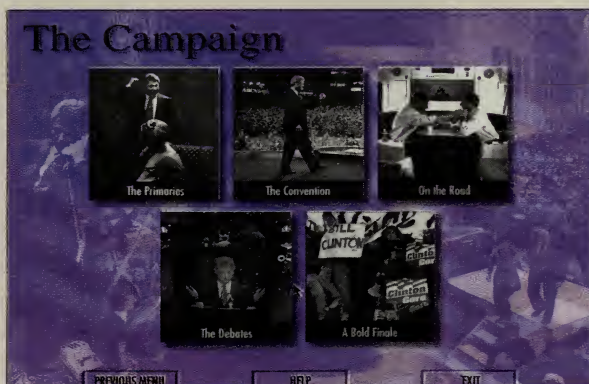
Sausalito, Calif. — Racing to create a commemorative book and CD-ROM in time for President-elect Bill Clinton's inauguration, Epicenter Communications, based here, elected to use Mac technology for its speed and efficiency.

"Clinton: Portrait of Victory" will ship separately in print and on disc. The book comprises photos by award-winning Time magazine photojournalist P.F. Bentley, who covered the campaign from its early stages to immediate post-election; an introduction by essayist Roger Rosenblatt; and an epilogue by Michael Kramer, chief political correspondent for Time.

Amazing Media, a multimedia production company based in San Anselmo, Calif., collaborated with Epicenter to create the CD-ROM in less than four weeks. The Mac-based company produced animated sequences with Macromedia Inc.'s MacroMind Director and Adobe Premiere QuickTime-editing software, created an original soundtrack using Macromedia's MacRecorder program, and developed photo collages in Adobe Photoshop.

The disc, an interactive diary of the campaign, is compatible with Mac and DOS systems. It features nearly 300 captioned photographs, as well as audio narration that includes Rosenblatt's and Kramer's essays, a musical score, and QuickTime video sequences for the Mac.

Amazing Media client services manager Steve Cherneff said he thinks the timeliness of the Clinton CD-ROM will make it more accessible to consumers than other discs. "For consumer multimedia to really



take off, it will have to have broad appeal. The content, not the technology, will push that appeal."

According to Epicenter President Matthew Naythons, also head of the book's creative team, the disc "will have mass appeal because it's today's headlines." In the meantime, it will educate buyers about the uses of multimedia, he said.

Like the disc, the book was produced under extremely tight deadlines. While photographer Bentley was on the campaign trail, Epicenter faxed photos ahead to him at airports for approval and date confirmation to ensure the book and CD-ROM were in chronological order. Epicenter was ready to go to press seven days after the election. Had Clinton lost, all bets were off.

Naythons said the production of the book, which was created in QuarkXPress, went very smoothly. "The only problems were how many hours people can work before they crash and burn," he said.

The ability to bring photojournalistic realism into a multimedia environment offers new ways to explore issues and events, Naythons said. Clinton himself purchased several thousand copies of the book, and the president-elect will distribute signed copies to his staff as an official thank-you.

The book is now available in bookstores; the disc is scheduled to ship by the inauguration. Warner Books sells the book for \$19.95; the CD-ROM will cost \$39.95 from Warner New Media. — By Jennifer Ambrulevich

1 Mbyte — far less than the space occupied by just one 24-bit photograph.

Archived images appear as a scrollable grid of thumbnails that can be sorted according to various criteria. MediaTree, a \$248 database from Tulip Software of Andover, Mass., has a unique outline view that lets users attach images to topics in a text-based outline — a helpful approach for establishing category hierarchies or preparing presentations.

The applications maintain links between each thumbnail preview and the full-size image, which can be retrieved and displayed (or played) without the original application. The database remembers where the images are stored, even across networks, and if necessary, prompts the user to mount the specific disk or CD-ROM.

"It's more intuitive to visually search for an image than to look at a list of file names," Piña said. "And it's a real timesaver to preview animated elements, such as QuickTime movies, without having to open Adobe Premiere."

In addition to cataloging and displaying graphics, image databases provide image-handling features. Selected graphics can be printed, cropped and placed into a page layout; exported in a different file format; saved as minicatalogs for sharing with other users; or edited by opening an application such as Adobe Photoshop from within the database.

Piña works with producers and art directors at various sites and likes the idea of sending them minicatalogs (called "projects") instead of entire images.

"For client approvals, we could send one small file that contains all the images we're working on," Piña said.

Pnot salts away range of multimedia information

It's easy to take QuickTime's preview capability for granted, but changes to Version 1.5 make the preview mechanism more capable and interesting.

Formerly limited to storing and displaying still images, QuickTime's previews have been extended to let users add a variety of multimedia comments to any file via a new type of resource called pnot. Notably, pnot resources can store file comments that are as permanent as the file itself.

QuickTime 1.0 users already are familiar with the multimedia extension's preview capability, which most QuickTime-savvy applications take advantage of: The directory dialog displays a single frame from a selected movie and stores this PICT preview as part of its pnot resource. The process also works for normal and compressed PICT images.

In addition, the revised pnot resource in QuickTime 1.5 can contain developer-defined types of information, such as keywords and textual descriptions. Unlike Finder comments, which are stored in the Desktop files, pnot resources are in the file

itself, and the descriptions can be up to 32 Kbytes. Furthermore, while Finder comments are erased every time users rebuild desktop files, pnot resources endure. Applications other than the Finder can edit and view these pnot descriptions.

Some third-party programs provide their own file-notation capabilities. For example, Microsoft Word lets users attach keywords to documents, and Adobe Photoshop can save captions with files. However, both applications' comments features are not accessible to other programs immediately.

Aldus Corp.'s Fetch is the first application that can read pnot resources — not surprisingly, since Doug Dawirs, founder of Provident Software Inc., developed the multimedia database program as well as collaborated with Apple on the expanded pnot definition (see MacWEEK, April 20, 1992).

The only tool that currently lets users create pnot resources is a ResEdit template, but Multi-Ad Services Inc.'s Multi-Ad Creator and Aldus FreeHand reportedly will be

revised early this year to support the creation of pnot resources.

Beyond the keywords and descriptions defined in Version 1.5, the pnot resource lets developers define custom previews that might include a variety of images and sounds.

A pnot resource can even contain alternative versions of comments in multiple languages.

Preview PICTs are not limited to thumbnail size. For instance, it might be useful to include full-size PICT representations of word processing or spreadsheet files.

"It makes sense to include full-size previews of any file that is not in a standard format," Dawirs said. There is no standard way to preview multipage documents, however.

The pnot resource is detailed in a technical note called "More Preview Information" on Apple's QuickTime 1.5 for Developers CD. Users can get the ResEdit template for creating pnot resources by sending a floppy disk to Provident Software Inc. at 211 S. Kingsley St., Anaheim, Calif. 92806-4053.

— By Steve Michel

Most programs offer a batch mode for adding new images to a database. Users simply drag a folder, CD-ROM or hard disk over the program's icon, and the database engine automatically locates all the image files, generates thumbnails and attaches basic identifying text.

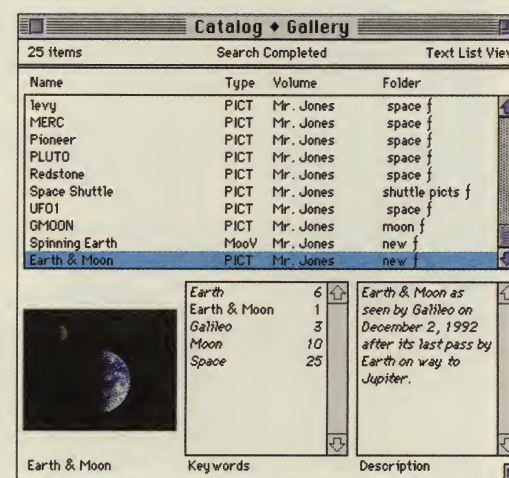
ImageAccess and MediaTree also support scanner drivers, enabling users to archive film transparencies. "Our photographers use the Nikon LS-3510AF slide scanner to bring images directly into the ImageAccess database," Honolulu Advertiser's Middlesworth said. ImageAccess can catalog up to 300 slides unattended when the optional Autofeeder is attached to the LS-3510AF.

Vital statistics.

Image databases also keep track of data associated with a graphic, such as subject, date, photographer and caption. Some programs offer customizable attribute fields (one could be named "photographer," for example), and text-description blocks hold up to 32,000 characters of captions and background details. While the descriptions in most image databases are self-contained, Fetch also takes advantage of information stored in a file's "pnot" resource, which travels with the file and can be accessed by other "pnot-aware" applications (see story above).

Having a central repository for all information about an image is a boon to Bob Zeni, a Chicago-based graphic designer who uses CompassPoint, a \$749 database from Northpoint Software of Berkley, Mich. "We used to have major headaches remembering our usage rights for photographs," he said. "Now we can look up any image and immediately see who the photographer was and exactly what rights we bought."

CompassPoint also provides automatic tracking of image use, an important consideration for publishers and advertisers. "If we used a graphic in last year's annual report, we don't want to repeat it in this year's," said Mark Ingram, a technical illustrator for the publications group at Irwin Magnetics of Ann Arbor, Mich. "Compass-



An image database such as Aldus Fetch displays archived images and thumbnails. Using keyword searches, users can quickly find graphics without knowing their specific location or file name. Keywords and descriptions displayed in italics are the file's pnot resources.

Point's NaviTrack system tells us when and where each image was used before."

Search and deploy. Being able to find graphics fast is a crucial selling point for most users. Ingram said it's easy to misplace images on a network filled with hard disks and removable media. "More than once I've had to redraw an illustration because I couldn't find the previous version."

Image databases solve this problem by allowing users to search and retrieve graphics without knowing their specific location or file name. Users can look for images using the file name, file type, date, keyword or text descriptions. The programs can search a database containing thousands of images and display the results in seconds.

By entering their own keywords for each image, users can perform searches tailored to their specific needs. "If we're doing a feature on the football quarterback at the University of Hawaii, we can do a keyword search for images tagged with

See Image, next page

Image databases for the Macintosh

COMPANY	PRODUCT	PRICE	AVAILABILITY
Aldus Corp. Seattle	Fetch	\$295	Now
Eastman Kodak Co. Rochester, N.Y.	Shoobox	\$395	February
Graphic Detail Inc. Raleigh, N.C.	Thumbs Up	\$995	Now
GTE ImageSpan Stamford, Conn.	Digital Album	\$595	Now
Interactive Media Corp. Los Altos, Calif.	Media Cataloger	\$99	Now
Multi-Ad Services Inc. Peoria, Ill.	Multi-Ad Search 2.0	\$249	March
Nikon Electronic Imaging Melville, N.Y.	ImageAccess	\$495	Now
Northpoint Software Berkley, Mich.	CompassPoint	\$749	Now
Tulip Software Andover, Mass.	MediaTree	\$248	Now

Image

From previous page

'quarterback' or the player's name and instantly have a selection of images to choose from," said Honolulu Advertiser's Middlesworth.

Workgroup workhorses. In a network environment, a server-resident image database minimizes disk-clogging duplicate files, ensures that everyone is using the same version of a graphic, and it eliminates the frus-

tration of finding that another user has borrowed a needed graphic.

Piña said Fetch's multi-user capabilities boost productivity because several people can work on images simultaneously. "For a big project that has to be done very quickly, one person can be finishing the details of a graphic while another proofreads its text."

Both Fetch and CompassPoint support multi-user access, and network administrators can set access privileges to prevent unautho-

rized viewing, cataloging or exporting of images. Northpoint said it will release a client-server version of CompassPoint early this year.

Multi-user access is a critical factor for Wendy Richmond, co-director of the Design Lab at Boston's Public Broadcasting Service station, WGBH. The Design Lab does a lot of multiversioning: taking one idea and producing projects in several media, such as videos, books and interactive CDs.

"The various producers need access to the same pool of images and videos, so an image database could be ideal for our work flow," Richmond said. "Right now, we have to make photocopies of everything and put them in folders." Richmond isn't using an image database yet but said she is keeping a close eye on the field.

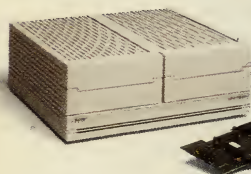
Digital Album from GTE ImageSpan of Stamford, Conn., is the only database that allows both Mac and IBM PC and compatible users to access a single server-based catalog. Communications giant GTE Corp. developed the \$595 product because it sees on-line image databases as a key use of high-speed networks. The Library of Congress is using Digital Album as part of its "library without walls" pilot program that exchanges images with universities over a fiber-optic link.

Aldus is working on a Windows version of Fetch, which would make both PC and Mac-

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STORAGE DIMENSIONS

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In a network environment, a server-resident image database minimizes disk-clogging duplicate files and ensures that everyone is using the same version of a graphic.

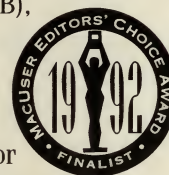
intosh files available through the same catalog. No release date has been announced for this version.

Enormous potential. Thus far, graphics professionals are singing the praises of image databases, an increasingly crowded field that also includes Media Cataloger (\$99) from Interactive Media Corp. of Los Altos, Calif.; Thumbs Up (\$995 single-user, \$9,995 multi-user) from Graphic Detail Inc. of Raleigh, N.C.; and the upcoming Multi-Ad Search 2.0 (\$249) from Multi-Ad Services Inc. of Peoria, Ill.

Content providers, such as stock-photo agencies and clip-art companies, also are enthusiastic users because they need to show customers the contents of their CD-ROMs. Apple, Macromedia Inc. and Image Club Graphics Inc. have licensed Fetch for their CD-ROMs, and Scott & Daughters Publishing uses Fetch on its Stock Workbook CD-ROM, which presents images from 48 suppliers of stock photos. 21st Century Media uses Shoebox's predecessor, Lightbox, for its PhotoDisc series of photography CDs.

But graphics professionals aren't the only ones who recognize the potential of image databases. Architects, libraries, museums, medical-imaging departments and even map makers are looking for efficient ways to organize their collections of visual and audio data.

Doug Dawirs of Provident Software Inc. of Anaheim, Calif., the developer of Fetch, has even fielded inquiries from the U.S. Army regarding parts catalogs and the National Football League regarding trading cards. "Actually, 80 percent of the businesses in the Yellow Pages are probably candidates for an image database," he said. □





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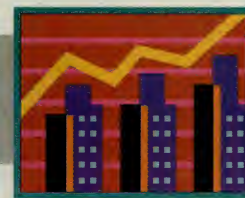
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BUSINESS WATCH

► Industry news
► Market trends



WordPerfect taking a new tack

*Acquisitions, alliances
highlight new openness*

By Lisa Picarille

Orem, Utah — It would be hard not to notice the dramatic changes at WordPerfect Corp., the once secretive software giant.

Nearly 10 months after the tumultuous departure of Executive Vice President Pete Peterson — once considered the “face and

voice” of WordPerfect — the \$532.5 million company has adopted an openness it long resisted.

WordPerfect President Alan Ashton called 1992 “a year of planning and strategy” and said he expects 1993 to be “the year of delivering products.”

Mary Conti-Lofreddo, an analyst at International Data Corp. in Framingham, Mass., said: “They have their ear to the ground more than [before]. It’s a big change for them just to talk to the outside world.”

Indeed, the word processor company recently has done more than just talk. It has done several things, including:

► Acquired three companies, including this month’s purchase of writing tools developer Reference Software International for \$19 million. The other buyouts were of Beagle Bros. Inc., makers of BeagleWorks integrated software, and Magic Soft Inc., a developer of asynchronous communications technology.

► Formed strategic partnerships with Borland International Inc. and Novell Inc. With Novell, WordPerfect is jointly developing a NetWare

WordPerfect Corp.

- Founded: 1979
- Chairman: Bruce Bastian
- CEO: Alan Ashton
- Headquarters: Orem, Utah
- Macintosh products: WordPerfect 2.1, WordPerfect Works 1.2, WordPerfect Office 3.0.3, LetterPerfect 2.1
- Employees: 5,000
- 1991 revenues: \$532.5 million
- 1992 revenues: Not available

Loadable Module (NLM) version of WordPerfect Office. The companies are co-developing a technology that would make it easier for network users to log onto electronic mail.

► Beefed up its relations with Apple, which translates into more Mac product development and plans to double its 70-person Macintosh team this year, according to Roger Bell, director of Mac marketing. “Mac is one of our top priorities,” he said.

For the first time, WordPerfect will be hiring sales representatives specifically for Mac products. Mac-related sales accounted for just 3

See WordPerfect, Page 42

It pays big to be an Apple exec

By Jon Swartz

Cupertino, Calif. — Apple rewarded its top managers handsomely for achieving record sales and profits in fiscal 1992, according to the company’s latest proxy statement.

The proxy shows the 15 highest-ranking executives as a whole were paid \$9.2 million, up from \$6.8 million for 12 officials a year ago. The top executives’ average pay increased 8 percent to \$611,262 during that period.

Apple’s sales in the fiscal year ended Sept. 25, 1992, grew 12 percent to \$7.1 billion. Profits increased 71 percent to \$530 million.

Of the top five executives, four received raises of more than 20 percent. John Sculley, Apple’s chairman, CEO and chief technology officer, saw his cash compensation jump 25 percent to \$1.65 million from \$1.34 million.

Michael H. Spindler, president and chief operating officer, got the biggest raise. His cash compensation increased 28 percent to \$1.13 million from about \$880,000.

The proxy also revealed that The Capital Group Inc., a Los Angeles-based investment company, has the largest stake in Apple — about 6.7 million shares, or 5.6 percent of Apple’s total shares.

A.C. “Mike” Markkula, vice chairman of Apple, according to the proxy, is now the company’s second-largest stockholder. His holdings declined to about 6 million from 6.2 million, giving him a 5.1 percent stake. No one else holds more than 5 percent of the company’s stock. □

Hayes, Multi-Tech settle suits

By Jeff Ubois

Atlanta — Hayes Microcomputer Products Inc. and Multi-Tech Systems Inc. last week quietly settled their four-year feud over a modem patent.

The out-of-court settlement, which calls for Multi-Tech to pay Hayes an undisclosed amount of money and Hayes to modify its claims about the TIES modems made by Multi-Tech and others, came just two weeks after a federal court ruled that Hayes’ patent on modem escape sequences was “valid and enforceable.” Multi-Tech had challenged the patent in an earlier suit.

“For its patent to survive an appeal was certainly good news for Hayes,” Multi-Tech President Raghu Sharma said. “However, by settling with Hayes, we have not in any way endorsed Hayes’ patent or admitted infringing it.”

Hayes appeared pleased with the settlement. “Basically they sued us

and they paid us,” said Hayes President Dennis Hayes.

The dispute started in December 1988 when licensing negotiations broke down and Multi-Tech sued Hayes to invalidate Hayes’ 302 patent on escape sequences. Hayes countersued in February 1989, alleging willful infringement. In December 1990, Multi-Tech filed another suit against Hayes, charging false advertising and unfair competition. Last September, Hayes was enjoined from running a controversial advertisement and shipping a “reliability test” disk designed to make TIES modems malfunction.

The bad blood between the two companies doesn’t appear to be over. “The TIES escape sequence has a very strong potential for creating a problem for users,” Dennis Hayes said in a statement following the settlement. “It was a flawed technical strategy from the beginning.” □

Soured real-estate deal spoils Adobe’s fourth-quarter results

By Jon Swartz

Mountain View, Calif. — Adobe Systems Inc. registered increased licensing revenues and application sales, but an unsuccessful real-estate deal torpedoed the company’s fourth-quarter results.

Adobe said revenues climbed 13 percent to \$70.7 million for the period ended Nov. 27, 1992. However, profits shrunk 36 percent, from \$13.1 million to \$8.4 million.

For fiscal 1992, the software developer’s sales increased 16 percent to \$265.9 million, but profits dipped to \$43.6 million, compared with \$51.6 million in fiscal 1991.

The company attributed the drop in quarterly profits to a \$6 million charge to write off a real-estate investment. Adobe withdrew from a limited partnership to develop a new worldwide headquarters in East Palo Alto, Calif., because the

developer could not finance the \$120 million project, according to Bruce Nakao, chief financial officer.

Real-estate projects aside, it was a good quarter for Adobe.

Licensing revenues were up 16 percent to \$42.1 million, as new PostScript Level 2 printers continued to hit the market. In addition, Adobe and Sun Microsystems Inc. signed a technology agreement under which Sun will integrate Adobe’s Display PostScript system into its Solaris operating system.

Meanwhile, fourth-quarter application sales — fueled by high demand for Adobe’s Photoshop, Premiere 2.0 and Dimensions — were \$28.6 million, up 8 percent from the same quarter last year.

For the year, application sales increased 26 percent to \$113.2 million, compared with \$90.2 million in fiscal 1991. □

StockWatch

01.13.93 CLOSE WEEKLY % CHANGE

Apple 63.50 2.83

SOFTWARE DEVELOPERS

Adobe 40.25 20.15

Aldus 13.50 -12.20

Caere 19.75 1.28

CE Software 3.84 -5.39

Microsoft 91.25 2.53

Novell 31.00 2.06

Symantec 12.25 -6.67

PERIPHERALS VENDORS

CMS 2.75 -12.00

HP 71.25 -2.06

Mass Micro 0.63 17.70

QMS 12.75 -3.77

Radius 5.25 2.44

RasterOps 6.88 -9.84

Sigma 7.25 1.75

SuperMac 17.75 4.41

STORAGE

Conner 21.25 -7.10

Maxtor 11.13 -26.45

Quantum 14.63 -12.03

Seagate 18.00 -15.29

SyQuest 21.00 -15.15

INDUSTRY INDICATORS

DEC 35.00 -2.44

IBM 47.75 -0.52

Motorola 112.50 3.93

Sun 37.38 1.01

Dow Jones 3263.56 -1.26

Compiled by Nordby International Inc.

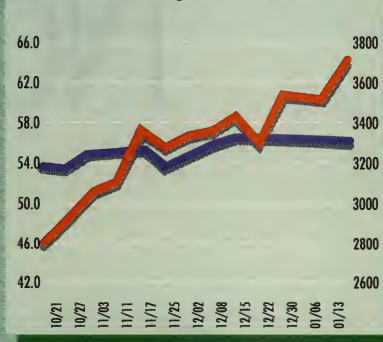
Even though it reported a 36 percent drop in fourth-quarter profits,

Adobe Systems Inc. was the big winner among high-tech stocks on Wall

Street last week.

That’s because sales of the compa-

Apple stock price 63.50 on 01/13/93
Dow Jones average 3263.56 on 01/13/93



Application sales boost Adobe stock



ny’s applications and its licensing revenues were good enough for investors to overlook a \$6 million charge to write off an ill-fated real-estate deal (see story above). Adobe’s stock rose 20 percent to close at \$40.25 per share.

Now that You've Seen the Show...



Conner acquisition, Maxtor sell-off final

Storage Dimensions now independent

By Jon Swartz

San Francisco — Several companies that market hardware and software for the Mac as well as other microcomputers have new owners this month.

► **Maxtor Corp.**, based in San Jose, Calif., completed the sale of its Storage Dimensions Inc. subsidiary to a group comprised of Storage Dimensions management and Capital Partners, a private

investment company based in Greenwich, Conn.

The deal includes about \$18 million in cash, a \$4 million note and an approximately 30 percent equity interest in the disk drive company. Storage Dimensions co-founder Gene Bowles said the transaction will not affect Maxtor's earnings for the quarter ended Dec. 26, 1992.

► **Conner Peripherals Inc.**, a San Jose-based drive maker, said it has completed its acquisition of Archive Corp., a maker of removable storage devices. Under the approximately \$21.5 million deal, Archive will become a wholly

owned subsidiary of Conner.

Conner also announced the resignation of Vice Chairman William Almon for "personal reasons." He is replaced by Seagate Technology Inc. co-founder David Mitchell, who joined Conner in October.

► **Alsys Inc.** acquired all of TeleSoft Inc.'s stock, creating the world's largest Ada products and services company with combined revenues of \$40 million in fiscal 1992.

The new company, known as Alslys Group, will be headquartered in Washington, D.C., and remain a subsidiary of Thomson-CSF, a multinational corporation. □

WordPerfect

From Page 40

percent of the company's \$532.5 million in revenues in 1991. Sales figures for fiscal 1992 were not available. By comparison, WordPerfect for DOS accounted for 58 percent of the company's 1991 revenues.

► Devised WordPerfect Information Systems Environment, the company's overall strategy for information sharing, information presentations and information processing.

But some observers think WordPerfect has its work cut out after a series of strategic gaffes in the past. "They are the last great amateur software company," said a source close to the company. "They are the only company not doing direct sales. Their tech-support organization is spinning out of control. Their product development process has been a catastrophe. And they are slow to change."

Added Conti-Lofreddo: "WordPerfect's challenge is to compete against suites of products from Lotus [Development Corp.] and Microsoft [Corp.]."

Like Lotus, WordPerfect has had difficulty making inroads in the Mac and Windows markets, but it is banking on information sharing to help chart its future business course.

"I think there is a huge opportunity with electronic mail, as there was in word processing," Ashton said.

However, a source close to the company said WordPerfect's core business remains "good old-fashioned word processing."

"All the rest of the interesting products or acquisitions typically have no effect on revenues. You can't screw up the cash cow. The bottom line is they have to be tremendously successful in word processing, and everything else is just an investment."

In fact, WordPerfect has yet to translate its DOS success to another platform. WordPerfect for Windows shipped a year late and received less-than-stellar notices.

Meanwhile, company officials reportedly are considering an initial public offering in the spring. WordPerfect officials would not comment on an imminent IPO, but they admitted the appointment of ex-Price Waterhouse Inc. executive Dan Campbell as chief financial officer last June was a move to get their financial house in order.

A WordPerfect IPO has the potential to be the largest in the industry since Microsoft went public in 1986. The IPO is expected to raise \$150 million to \$250 million, according to sources.

"We have grown the company solely based on revenues," Ashton said. "We have to continually assure people we are a major player." □



Business

BRIEFS

Seagate reports 475 percent jump in profits

Scotts Valley, Calif. — Braving a personal-computer price war that has wounded several manufacturers, Seagate Technology Inc. last week announced improved second-quarter sales and profits.

The company, based here, said profits for the quarter ended Jan. 1 were \$63.3 million, up 475 percent from \$11 million in the same quarter a year ago. Sales increased 12 percent to \$776.6 million, from \$695.1 million last year.

For the six-month period, sales were \$1.52 billion, compared with \$1.32 billion last year. Profits were \$122.9 million, compared with a loss of \$36.8 million.

Al Shugart, Seagate chairman and CEO, attributed the jump in sales and profits to increased customer demand for its high-end drives. "We're a survivor. We're going to outlast this price war," he said.

FTC could file injunction against Microsoft next month

Washington — The Federal Trade Commission could file a preliminary injunction in federal court against Microsoft Corp. alleging unfair business practices as early as Feb. 5, according to the FTC:Watch newsletter.

The publication, based here, said the commission has scheduled a meeting on that date to discuss Microsoft's method of licensing its MS-DOS operating system software to computer manufacturers.

However, Mary Lou Steptoe, the FTC's Competition Bureau director, has recommended that FTC commissioners not split up the software giant or establish a "Chinese Wall" between the firm's systems and applications divisions, according to FTC:Watch Editor Art Amolsch.

Riding the (Radius) Rocket in Japan

San Jose, Calif. — Radius Inc., hurt by sluggish sales in the United States, last month turned to the Far East to improve its revenues.

The company signed an exclusive agreement under which Apple Japan will sell Radius' RocketShare multiprocessing software for the Mac II, IIx and Quadra.

The agreement also lets Apple Japan offer a product bundle that includes the Radius Rocket 33 accelerator and RocketShare.

Industry observers said the contract should help the display and accelerator maker rebound from a loss for the quarter ended Dec. 31, 1992 (see MacWEEK, Jan. 4).

Radius' sales in Japan doubled last year to about \$8 million and are expected to top \$10 million in 1993, according to Mary Coleman, vice president of marketing.

MacWEEK index

DECEMBER TOP SELLERS

The top 10 products by dollar volume and category at ComputerWare, a chain of Mac-only resellers in California. The list does not include Apple-label products:

NOV. DEC. General applications

1	1	Microsoft Word 5.1
2	2	Microsoft Office 2.5
4	3	Microsoft Excel 4.0
5	4	Claris FileMaker Pro 2.0
9	5	Aldus Persuasion 2.12
3	6	QuarkXPress 3.1
8	7	ClarisWorks
*	8	ACI US 4th Dimension 3.0
6	9	Aldus PageMaker 4.2
*	10	FrameMaker 3.0

NOV. DEC. Connectivity

2	1	Supra FaxModem V.32 MacPac
1	2	Global Village PowerPort/Gold 14000
6	3	Asante MacCon+ II/E64 Ethernet card
7	4	Global Village PowerPort/Silver 9600
*	5	Farallon PhoneNET Connector 50-Pack
4	6	Global Village TelePort/Gold 14000
5	7	Global Village TelePort/Bronze 2400
8	8	Global Village PowerPort/Bronze 2400
9	9	Synergy VersaTerm Pro 3.6
*	10	Insigina Universal SoftPC 2.5

NOV. DEC. Hardware

1	1	Hewlett-Packard DeskWriter printer w/AppleTalk
*	2	SuperMac DigitalFilm
*	3	Hewlett-Packard DeskWriter 550C printer
4	4	La Cie 240-Mbyte internal drive
6	5	Hewlett-Packard DeskWriter C color printer
5	6	Hewlett-Packard ScanJet IIc
*	7	Hewlett-Packard LaserJet 4M printer
*	8	Radius PrecisionColor 20-inch monitor
*	9	La Cie Tsunami 105-Mbyte external drive
7	10	GCC BLP Elite printer

NOV. DEC. Graphics and multimedia

*	1	Adobe Dimensions
9	2	Cachet ColorEditor 1.01
1	3	Adobe Photoshop 2.01
2	4	Gryphon Morph 1.1
5	5	Claris MacDraw Pro 1.5
3	6	Deneba Canvas 3.0
4	7	Macromedia Three-D
6	8	Adobe Illustrator 3.2
7	9	Fractal Design Painter 1.2
*	10	Fractal Design Sketcher

NOV. DEC. Utilities

1	1	Symantec Norton Utilities for Mac 2.0
4	2	Symantec AntiVirus for Mac 3.5
*	3	Symantec Norton Essentials for PowerBook
6	4	Fifth Generation Suitcase 2.1
2	5	Now Utilities 4.0
3	6	Berkeley Systems Star Trek screen saver
*	7	La Cie Silverlining 5.4
9	8	CE Software QuickKeys 2 Version 2.1
7	9	Berkeley Systems After Dark/M.A.D. bundle
8	10	CPU (Connectix PowerBook Utilities)

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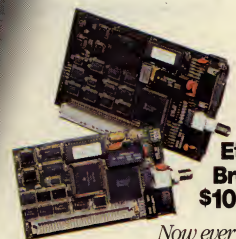
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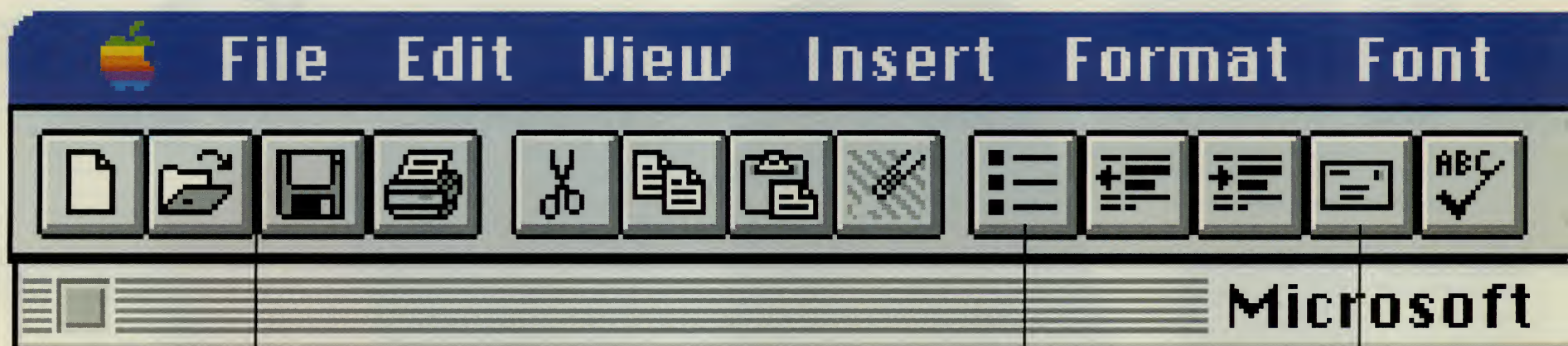
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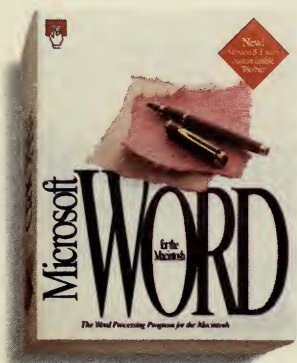


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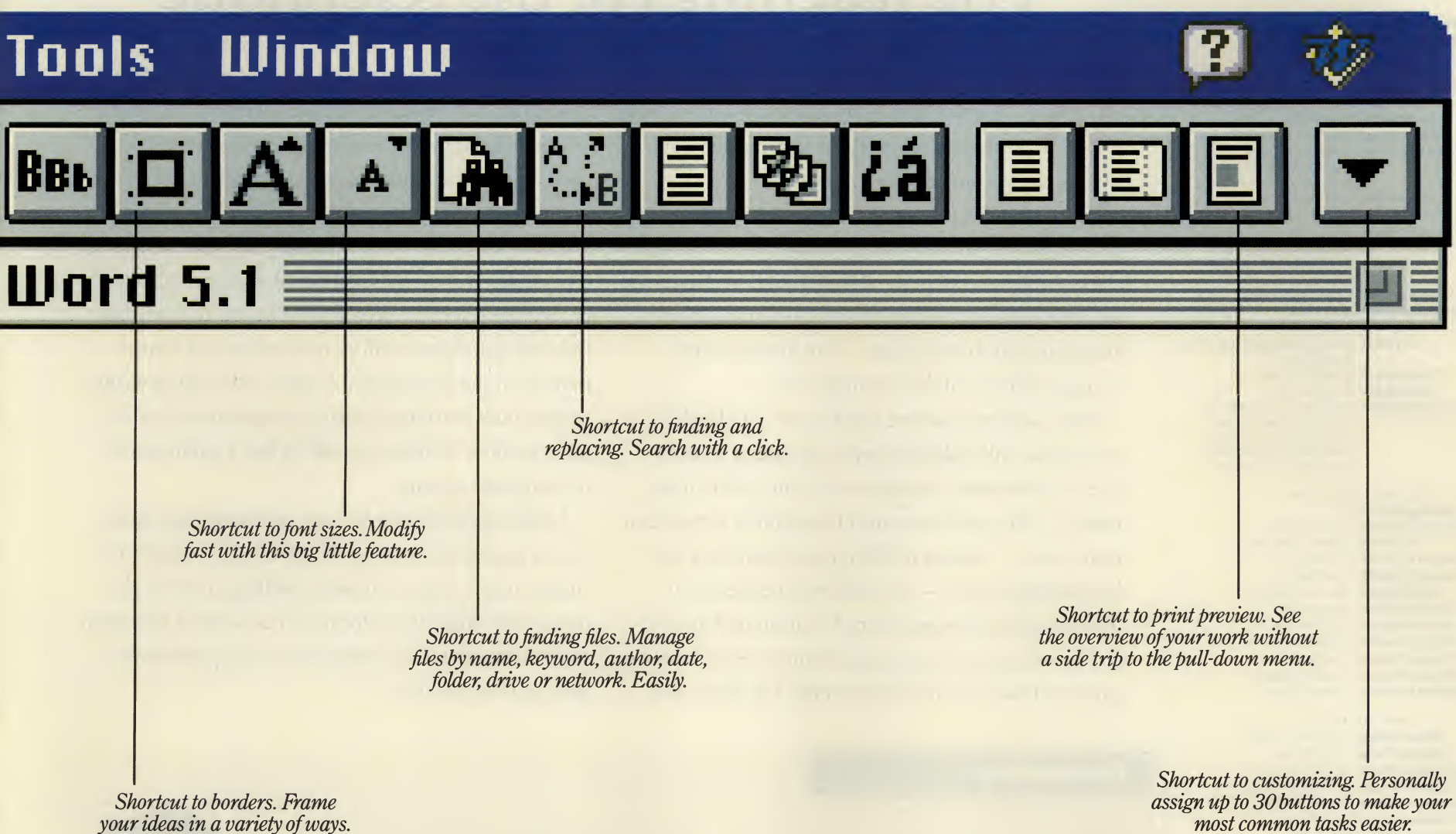
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EDITORIAL

The teachings of the telephone

What is the most critical piece of technology on your desk — the one you use most often, the one you and your organization would have the hardest time getting by without?

For most readers, we suspect, the honest answer is not the Mac, but the phone. It's more than a century old, and it lacks the glamour of newer digital devices — chances are you don't get weekly publications or go to trade shows about your brand of telephone — but the horn is the unsung workhorse of the information age.

In fact, as phone users we take for granted a level of convenience still undreamed of in computing. Phones have a user interface so simple even young children can master it. Although the worldwide network is not quite an open system — because of differences in hardware standards among nations — from the user's perspective it offers complete interoperability: From our desktops we have immediate, real-time access to almost every business and household in the developed world. The distributed

database known as Information provides universal directory services. And crashes are so rare, they make headlines.

With telephony and computing now converging at a rapid rate, one can't help but wonder which model will prevail — the simplicity and universality of the phone system or the conflicts and confusion that still characterize computing. Will the personal digital assistants we may all be carrying before the decade is out be able to share data truly transparently, or will we have to fuss with format translation and font metrics? Will the videoconferencing systems built into future desktop computers work with other vendors' hardware, or will we face a proliferation of proprietary systems?

In this respect, reports from the technological frontier are not entirely encouraging. But there's still a chance for change, if the computer industry is willing to let the telephone be its guide. If not, the brave new world of integrated digital communications could prove a disappointment to users and vendors alike. □

Commentary

System 7.1 isn't worth the price of admission

With major changes happening at Apple's Macintosh Software Architecture Division almost daily (including the recent exit to more northerly climes of Roger Heinen, MSAD's general manager, and David Nagel's assumption of the post), perhaps this is a good time to suggest a few changes at MSAD. This week, I'd like to focus on system-software upgrades.

The user experience. Recently, I upgraded to System 7.1. I bought the full \$99 Personal Upgrade Kit and proceeded to install it.

Before I so much as stuck a disk in my Mac's drive, I was struck by the lack of information concerning what I, as a System 7.0 user, was getting by upgrading to System 7.1.

The back of the box, for instance, quotes Macworld magazine: "The new Finder ... is worth the cost alone." The quote, in fact, refers to the Finder shipped with System 7 almost two years ago, not System 7.1. Also, the Upgrade Guide, subtitled "Installation and new features of System 7.1," devotes no

space to the precious few new features of 7.1.

The installation went well. I then loaded At Ease, which was included as a limited-time bonus with my 7.1 package. I was skeptical at first, but this looks like a useful tool to share a Mac with young users. Let's hope At Ease stays in the box.

Then, things took a turn for the worse: My Mac crashed and would not reboot. I reinstalled 7.1, and it's been behaving well so far. But I worry, and I've been watching AppleLink for a 7.1 Tune-Up, hoping that the error that crashed my system the first time around isn't still lurking somewhere, waiting for the right moment to hit me again.

I have to say that the System 7.1 upgrade netted me a few bug fixes, the Fonts folder (which should have been part of 7.0), and a chance to try out At Ease and "World-Ready" font capabilities, but overall it was not worth what I paid.

Microsoft malady. The new release is more evidence that thinking about Microsoft Corp. is bad for the mind. Fortunately, the malady doesn't strike everyone, only some mission planners in Cupertino.

After two years of price wars, even if it still enjoys much higher margins than PC makers, Apple is under continued pressure to cut expenses and find more money.

Add another kind of pressure, Microsoft's press clippings, and even the most

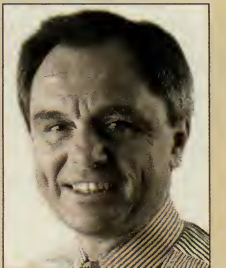
insightful decision makers begin seeing things. Frequent mirages induce victims to believe Apple is in the system-software business and should, therefore, charge for system software. (We already pay for software with higher Mac hardware prices, but this is an argument lost on MSAD managers.)

Wishing to be Microsoft does not make it happen. And Apple's attempts to ape its rival are mistimed and ironic. The reputedly greedy Microsoft is the very company that will ship you a dozen disks for free if you call as a registered user and request maintenance releases. And, whatever Apple says, System 7.1 is mostly a maintenance release.

Now Apple may not want to go to these extremes, nor does anyone believe that free software upgrades forever is a sensible policy. But the current pricing and distribution strategy for intermediate OS releases hurts Apple more than it helps.

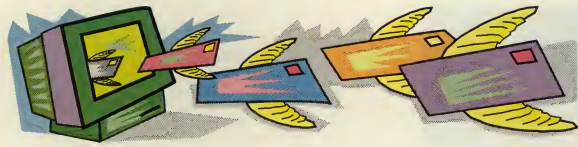
Customers will refrain from upgrading to the latest version, and developers will start second-guessing the company when it comes to supporting the latest features.

Ultimately, I doubt the revenues from 7.1 are worth the ill will. □



JEAN-LOUIS GASSÉE

LETTERS



Lack of system floppy disks threatens Performa users

By now you have probably heard numerous complaints about Apple's policy of not including a set of system disks with the new Performa Macs.

Let me explain. Apple ships the Performas with all system software (and any bundled third-party applications) already installed on the hard drive. It does not, however, provide copies of the operating system on floppy disk. Instead, it instructs the user to back up the hard disk with the included Apple Backup utility. As a result, if anything happens to the System file, the entire hard disk must be restored just to replace the single system file.

I have spoken to my co-workers, and none of them can offer sufficient justification for this policy. A registered software licensee should have easy access to any part of the licensed software. Apple's action here is both insulting and frustrating. Even Apple's own technical-support department admits that it has received hundreds of complaints regarding this narrow-minded policy.

I hope that increasing public awareness will force Apple to rethink this policy.

*Adam Sicker, Project Editor
The Institute of Electrical and Electronics
Engineers Inc., Piscataway, N.J.*

Cross-platform development can lead to mediocrity

I have noticed a disturbing software trend. For lack of a better term, I call it LCD (lowest common denominator) software.

One manifestation of this trend is when a Windows software company ports its product to the Mac. Unfortunately, in all too many cases the Windows GUI follows. Start with multiple tool bars with all manner of cryptic icons. Add a status bar to explain the cryptic icons in the tool bars. Mix in a menu bar and a palette or two. Finally, stir well until confusion reigns. I pity the poor user who installs a Microsoft product on a compact Mac. I include Microsoft Corp. in this category because its Mac software is becoming just another Windows port. Hey guys, this is the Mac. I want palettes, not tool bars. If I wanted Windows, I'd buy Windows. Frankly, a lobotomy is more appealing.

Another example of LCD software is when a cross-platform developer insists that the products for both platforms should look the same and have exactly the same feature set across platforms. I don't mind having common features, but what sometimes happens is that both versions get watered down. Look what happened to Aldus PageMaker. It appears that Aldus Corp. is putting the Mac second; as a result, QuarkXPress is eating PageMaker for lunch. Unfortunately, Quark Inc. has been bitten by the LCD bug, and I

expect XPress to become sickly as well.

All the mainstream GUIs have different strengths and weaknesses, and I think it only proper that the GUI implementations be different as well. A Mac word processor should look and feel different than a Windows word processor. What's going to happen when QuickDraw GX, TrueType GX and the new print manager arrive for the Mac? Or what will happen as the MS-DOS world splinters into DOS, Windows 3, Windows NT, OS/2 and the Unix shell flavor of the month? I pity the developers of the excellent Adobe Photoshop. As Adobe Systems Inc. pushes it across multiple platforms, I fear it will develop a personality that reflects whatever common blandness can be found among the various GUIs.

I'm fed up and I'm not going to buy Windows clone junk anymore. I'm going to buy software that parallels the Mac paradigm. I'm going to support developers that pay attention to their Mac products. I'm also going to switch my company and as many clients as I can.

My wallet is open. Are there any true Mac developers out there anymore?

Lee Jones, Graphic Concepts, Cincinnati

Give educational products their fair share of coverage

I am president of a Mac user group at a major university, and each issue of MacWEEK is read eagerly by all of our group as well as other interested faculty and administration. This year our office has added two Mac IIcx machines and five Mac LCs, as well as a second LaserWriter. We also are currently in the market for a flatbed scanner and an LCD projector.

In addition to organizing workshops and participating in purchasing decisions, our group has been lobbying for the wholesale conversion of our 20-machine computer lab to an integrated Mac system, and we hope that this will take place this year. The stories and reviews published in MacWEEK have been invaluable in our research and lobbying efforts.

The only suggestion we have for MacWEEK is more stories about educational applications. Since the Mac is the machine of choice in so many of our top institutes of higher education, where a substantial share of the installed Mac base is, we would appreciate some of the attention you give to business, scientific and graphic arts users. Perhaps a regular feature on what's new in educational applications and on Mac campuses would be popular.

*Michael F. Feldman, president, Mac Users
Group, Center of English Language Programs,
Boston University, Cambridge, Mass.*

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The Mac Manager

Hey Apple: HyperCard does not need to die



DON CRABB

HyperCard is dying. You won't see the formal obituary quite yet, but for all intents and purposes, the program will shortly bite the dust unless we act now.

Claris Corp. can't make money from the product, nor can it afford to support the millions of HyperCard users who got the program free when it was bundled with every Mac.

This is wrong. HyperCard isn't just an important educational tool; it's nearly an industry-standard environment for personal applications and a number of database and development products that go right to the heart of the strategic computing resources of many corporations.

Should we sit still while Claris is backed into the position of letting HyperCard die? I don't think so.

Death be not proud. There's nothing noble about the pending death of HyperCard. I've heard some nonsense recently to the effect that "HyperCard isn't needed anymore since we have other multimedia authoring tools and AppleScript."

Really? Want to try to prototype an access and control application with a conglomeration of Authorware Pro and QuickTime movies? Not in this lifetime, thank you.

While AppleScript might prove useful to corporate and educational users, it simply can't replace HyperCard. In fact, the two could be combined to produce something adding up to more than the sum of the parts. As Claris showed in an intriguing "technology demo" at this month's Macworld Expo, a version of HyperCard that supported AppleScript in place of HyperTalk would give developers the best of both worlds: a familiar set of authoring tools and extensive control over other applications.

Leap of faith.

I have a simple proposal for resuscitating HyperCard. Apple should sanction Claris to turn it over to us, the user community; make it freeware and give away the source code, the technical documentation, even the color version that's languished unfinished for the past year. Let HyperCard's customers and its most influential third-party product developers take the program and run with it.

Or if freeware is too radical for the bean counters, then sell it for a reasonable price to a consortium of some of HyperCard's top value-added resellers. Perhaps we could create a new company, run by the likes of Dan Shafer and Danny Goodman. They would stand a much better chance of putting HyperCard back on the track that Bill Atkinson promised us six years ago.

Before you think I've lost it, consider the advantages of HyperCard being further developed by those who stand to benefit from it: Better extensions to HyperTalk, including more data types, and a stronger object-oriented programming orientation; full-color support; strong application programming interfaces to other programming languages and database systems; multimedia extensions; cross-platform versions for Windows and Windows NT; and native-mode versions for the PowerPC Macs.

Of course, we can sit back and hope Apple eventually will do the right thing and capitalize HyperCard development, but betting all your corporate HyperCard applications on that leap of faith is adventuresome at best.

It's better to start calling our Apple and Claris contacts now to lobby for HyperCard to be set free. □



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Reviews

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► Project Scheduler 5. See Page 54.
► Dynodex. See Page 55.
► Reviews Forum. See Page 56.



SuperMac's DigitalFilm plays QuickTime up to its potential

Despite its voracious hardware requirements, DigitalFilm's package is a solid way to show full-motion, full-screen QuickTime.

By Ric Ford

Apple carefully designed its QuickTime architecture for scalability, but hardware limitations have stunted Macintosh movies to date. SuperMac Technology's \$5,999 DigitalFilm is a package of hardware and software that boosts QuickTime closer to the level of a digital VCR. DigitalFilm's potential, however, is realized on only the most powerful Mac systems.

At the heart of the product are a NuBus card and daughterboard with a CL550 processor from C-Cube Microsystems to perform JPEG (Joint Photographic Experts Group) compression and decompression.

A thick cable joins the card to an external encoder box, which provides a set of analog inputs and outputs for stereo audio, composite video and S-video. An additional port drives a Mac display up to 16 inches in size.

Dropping a control panel into the System folder registers DigitalFilm with QuickTime and makes its compression hardware available to any QuickTime application.

SuperMac bundles Adobe Premiere 2.0.1 with DigitalFilm and also includes DiskExpress II, a disk-defragmentation utility from ALSoft Inc. At press time, SuperMac also announced a deal to bundle The Company of Science & Art's (CoSA) After Effects with DigitalFilm.

Capabilities. Provided with a Mac Quadra, plenty of RAM and an extremely fast hard drive, DigitalFilm can capture full-motion video at 640 by 480 pixels to disk, using Premiere or other QuickTime recording applications. At best, however, it captures only one field per frame, limiting the system to half the resolution of television. Capturing both of the two interlaced fields is beyond the capabilities of the hardware.

DigitalFilm can capture stereo audio simultaneously at 22 kHz with eight bits of resolution. (SuperMac said the hardware actually samples at 10 bits, but Apple's current Sound Manager limits quality.)

DigitalFilm appears as just another compressor in a Quick-

Time application's pop-up menu, and you control its operation through the standard QuickTime interface, adjusting compression level, frame rate, image size, audio gain and video setup (contrast, brightness, hue, saturation, sharpness, black level and white level).

Additional controls allow you to switch between S-video and composite inputs, choose input format — NTSC, PAL (European) and SECAM (French) and optimize for either tape or broadcast sources.

You edit and play back DigitalFilm movies just like other QuickTime movies. Circuitry derived from SuperMac's Thunder cards drives DigitalFilm's monitor port fast enough to keep up with the display demands of large movies. It also provides hardware zoom, which Premiere can use to expand a



Jagginess and compression artifacts appear around the glasses in the image on the left, captured by DigitalFilm at medium quality. Fine details are clearer in the image on the right, captured from the same source with a RasterOps ColorBoard 364.

320-by-240-pixel movie to full size for printing to tape or for more-convenient viewing.

Movies captured with DigitalFilm can be played back on other systems without DigitalFilm hardware, using QuickTime's software JPEG routines, but playback speed in this case is glacial.

The standard Monitors control panel is used to switch the encoder box between driving a Mac monitor and sending out video signals in NTSC or PAL formats.

No convolution is provided, and it can be awkward trying to manipulate the flickering Mac screen on a

See DigitalFilm, next page

Adobe takes 3-D design to new Dimensions

By Philip Bishop

Created for graphic designers and artists who rely on PostScript drawing tools, Adobe Dimensions 1.0 is a powerful utility from Adobe Systems Inc. that lets you create original 3-D objects, map 2-D artwork onto 3-D objects, and use existing 2-D artwork for extrusion or rotation into a 3-D shape.

Unlike standard 3-D modelers and renderers, the \$199 Dimensions is fairly simple to use.

Basics. Dimensions has an interface that will be very familiar to users of Illustrator, Adobe's PostScript illustration program, and it is with this type of program that Dimensions is intended to be used.

Dimensions allows you to build objects based on simple 3-D shapes, called primitives, and it provides tools for creating cubes, spheres, cones and cylinders. However, a great deal of your time probably will be spent importing artwork from a drawing program to be manipulated in Dimensions. You can export the resulting rendering back to your illustration program for further manipulation. Dimensions renders

3-D artwork as editable Bezier curves; this means that you can edit the resulting 3-D files as you would any other PostScript illustration.

In addition to importing Illustrator files, Dimensions handles artwork from Aldus FreeHand and Macromedia Inc.'s Swivel 3D. Deneba Software's Canvas also belongs on this list, but because of a bug we were unable to test this (this should be corrected in the

next revision of Dimensions).

There are two types of line art you cannot import into Dimensions: patterns and artwork that contain a compound path that include an intersecting path (such as interlocking rings). Also, text must be reduced to outlines before it is imported, and you cannot import Encapsulated PostScript files.

Like Illustrator, Dimensions

See Dimensions, next page

score card

DigitalFilm

SuperMac Technology

List price: \$5,999

Overall value ♦♦♦

DigitalFilm represents a new state of the art for QuickTime, providing the hardware and software necessary to capture, manipulate and output full-size, full-motion video on a Mac. Its appetite for resources is enormous, however, reducing its capabilities on anything but the very fastest Mac systems available. Resolution, audio and motion issues limit DigitalFilm's usefulness for professional video production, but it is a powerful tool for multimedia production and for sketching out concepts that will be produced in traditional media.

Performance ♦♦♦
Features ♦♦♦♦
Configuration ♦♦♦♦
Compatibility ♦♦♦
Documentation/support ♦♦♦♦♦

RATINGS KEY

♦♦♦♦♦ Excellent
♦♦♦♦ Very good
♦♦♦ Good
♦♦ Fair
♦ Unsatisfactory

score card

Adobe Dimensions

Adobe Systems Inc.

Overall value ♦♦♦

Version tested: 1.0

List price: \$199*

Created for graphic designers and artists, Dimensions is a powerful utility that lets you build and render 3-D artwork as editable PostScript files. You can import 2-D artwork to extrude or rotate into 3-D shapes, and you can map 2-D artwork onto 3-D objects. The program's interface could be smoother, and a function to import artwork from Deneba Software's Canvas doesn't work with this version. However, Dimensions is nonetheless an innovative tool. With it you can create 3-D artwork easily and use the resulting output as a PostScript file in any application that can accept that format.

Performance ♦♦♦
Features ♦♦♦

Ease of use ♦♦♦
Documentation/support ♦♦♦♦

*\$99 through March 1; Dimensions is also bundled free with Adobe Illustrator until that date.

DigitalFilm *From previous page*

television monitor as you prepare to print a movie to videotape.

Expensive taste. Despite its compression hardware, DigitalFilm must move enormous quantities of data as it works. At full resolution and full motion, more than 1 Mbyte per second is struggling to flow through the system.

A Mac's disk throughput is even more critical than its processor for DigitalFilm performance. SuperMac strongly recommends a large-capacity hard drive spinning at 5,400 rpm or more, with a transfer rate in excess of 3 Mbytes per second.

Few Macs can even pump this much data through their built-in SCSI ports. Quadras make good DigitalFilm hosts, with their high-performance architecture, but a IIx needs a special SCSI card to reach above 1.5 Mbytes per second. No slower Macs are recommended.

Disk fragmentation is also a problem, creating unwanted pauses during recording or playback. The bundled DiskExpress II utility can defragment a disk, but this process is time-consuming, and fragmentation occurs rapidly during normal work.

In addition to a fast processor

and the fastest possible disk system, DigitalFilm needs a lot of RAM. Premiere alone requires at least 8 Mbytes, and 32-bit addressing is a prerequisite.

Performance. SuperMac lent us a blindingly fast Quadra 950 for testing. It was equipped with 64 Mbytes of RAM and a 2-Gbyte disk array that exceeded 5 Mbytes per second in our transfer-rate benchmarks.

We configured this system for optimum performance, carefully defragmenting the disk, disabling AppleTalk, removing all extra extensions, setting the monitor to its lower resolution and allocating as much as 40 Mbytes of RAM to Premiere in 32-bit mode.

Despite the precautions and the host system's power, we encountered motion glitches and other artifacts at the highest quality settings, capturing from either broadcast or tape sources.

(Since compression varies with the type of source material, we tested primarily with broadcast and Hi-8 source material. Noisy tape shot in low-light conditions appeared to aggravate performance problems.)

Careful examination of the movies showed duplication of frames and occasional horizontal

tearing, which leads to jumpy motion, especially with moving subjects. Some rubbery, vertical jitter was also evident, even on some stationary images and in sample movies supplied by SuperMac.

Shrinking the image size to 320 by 240 pixels decreased the jumpiness.

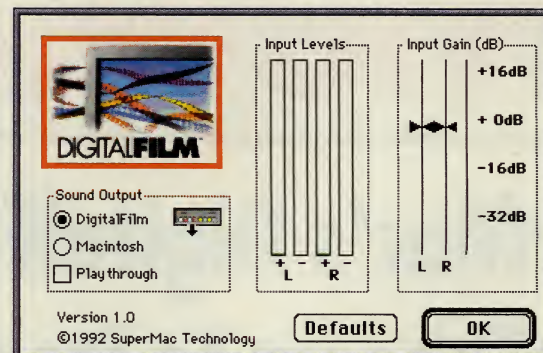
Reducing compression quality to the middle level eliminated most of the frame duplication in full-size movies and smoothed out the motion, but it began to degrade the image with shimmering digital artifacts.

Next, we tried a hard drive that spins at 5,400 rpm and writes data at about 2.2 Mbytes per second from the Quadra 950.

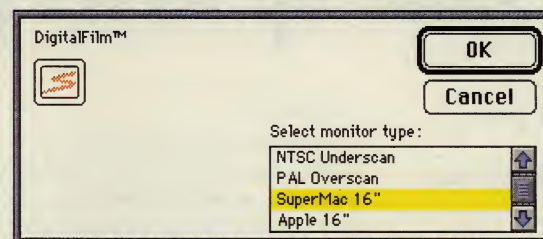
The slower performance of this drive created more motion problems with full-size video at the highest quality setting. Instead of capturing each video frame, DigitalFilm often duplicated frames several times, skipping past pieces of source material. This produces a jerky effect when the footage is played back.

Switching either to medium-quality compression or to a 320-by-240-pixel capture size again eliminated most of the motion problems.

For perspective, we also tested on a Mac IIx equipped with 20 Mbytes of RAM. The disk transfer rate was about 1.4 Mbytes per sec-



DigitalFilm's audio is controlled through the standard Sound control panel, and output may be routed either to the Mac speaker or out to stereo jacks.



The standard Monitors control panel switches the external encoder output between Mac monitors and television equipment.

ond, limited by the IIx's SCSI port.

In this environment, we had to both reduce the capture size to 320 by 240 pixels and lower compression quality to its middle setting to get motion problems under control. DigitalFilm captured movies at this level without skipping many frames, but we still encountered short pauses during playback.

Audio performance of DigitalFilm is far below high-fidelity standards, but it performs better than

Apple's built-in audio circuitry, and synchronization between audio and video is accurate.

Image quality and output.

Under ideal conditions, the quality of DigitalFilm's analog video output is good. Some loss of resolution is inevitable because DigitalFilm captures only fields and not complete frames (similar to a VCR in pause mode). This also produces a

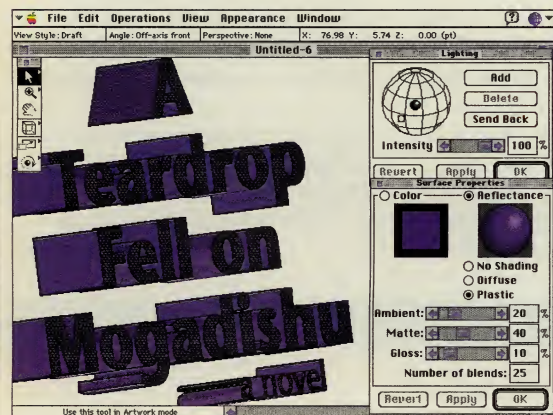
See DigitalFilm, next page

Dimensions *From previous page*

requires you to work in a wireframe mode (a skeleton of lines and curves representing objects). However, Dimensions doesn't give you the option, as in Illustrator, of opening a second window to preview the finished piece, so you are forced to switch back and forth between

modes. The company notes that while this feature may be added at a later date, it won't improve rendering speeds.

Dimensions' Toolbox includes four selection tools, tools for scaling and rotating objects (either by dragging or through dialog boxes), and tools for creating the aforementioned primitives.



Adobe Dimensions makes it easy to apply 3-D effects to 2-D headlines, logos and other type. This title was first created in Aldus FreeHand and converted to paths. In Dimensions it was extruded to add depth, rotated, colored, lit and rendered.



A simple line drawn in an illustration package can be "lathed" into a circular shape. This object was lathed from a line drawn in Aldus FreeHand, then rendered.

Headly headlines. A popular use for Dimensions is sure to be creation of 3-D type effects, such as headlines, titles and logos. We were impressed by how easy it is to produce striking designs of this kind. You create 3-D type using the Extrude command, which adds depth to 2-D artwork. Dimensions applies this either as absolute depth (by measurement) or as a percentage of the object's height or width, whichever is larger.

Lights, camera, action. Once you build an object, you also need to apply lighting. The Lighting dialog box contains a drawing of a globe with your artwork represented by a black circle at its center. To change the lighting, you simply drag a white circle to a new location on the globe relative to the black one.

In the Surface Properties dialog you can set stroke and fill color using a CMYK (cyan, magenta, yellow, black) color model controlled by four sliders. You also can set the Reflectance, which refers to the way an object reflects light. The Diffuse setting, for example, spreads the light softly over a broad area, while the Plastic setting gives an object a hard, glossy appearance.

You can apply items from the Surface Properties window only when your object is selected in Artwork mode. When you are in one



With Adobe Dimensions you can map artwork created in a 2-D drawing program to a 3-D object. Getting the exact fit can be a tough job. Fortunately, you can export the surfaces of your object to your drawing program as a set of guides. After aligning your artwork in these guides, you then reimport it into Dimensions for an easy fit.

of the render modes, it's impossible to tell if an object is selected because you can't see the curve and line handles. The only cue you have is that the Surface Properties dialog doesn't apply the changes you attempt to make.

Rendering. When you click the Apply button, whether for lighting or surface properties, Dimensions renders the object (rendering is the process that calculates the final realistic image). Rendering is not fast when compared with many

tasks, but it's not bad when compared with a standard preview of a very complex Illustrator document: Rendering a 28-character, 48-point headline using the Shaded Render command took between 45 and 85 seconds on a Quadra 900. Dimensions also offers Wireframe Render and Draft Render options, which are quicker but offer less detail.

Rendering this headline pushed the program to the limit of its default 2-Mbyte partition. Bumping the partition up to the recommended

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DigitalFilm

From previous page

little jagginess in diagonal lines. Other products are much better for capturing still images from video.

DigitalFilm's compression artifacts are minimal at the highest quality setting but are readily apparent at medium quality in full-size images.

Capturing half-size images at the best quality and then enlarging them for playback may produce better results than capturing at full size with medium quality.

Premiere's default setup parameters produce analog output that suffers on playback from excessive brightness, color shift and other problems. Trial-and-error adjustment of the video parameters before capturing movies can solve most of the problems. Using a television monitor for setup is almost a necessity because images look quite different on a Mac monitor.

Reliability, compatibility and support. We encountered mostly minor glitches with DigitalFilm, and none could be attributed directly to the product.

SuperMac offers a five-year warranty on the hardware and a 90-day limited warranty that the software will perform substantially as documented. The company provides several options for technical support, including a bulletin board system and accounts on major on-line services such as CompuServe. (SuperMac's on-line support has been very good in our experience.) SuperMac also offers a 30-day money-back guarantee with DigitalFilm, available through its distributors.

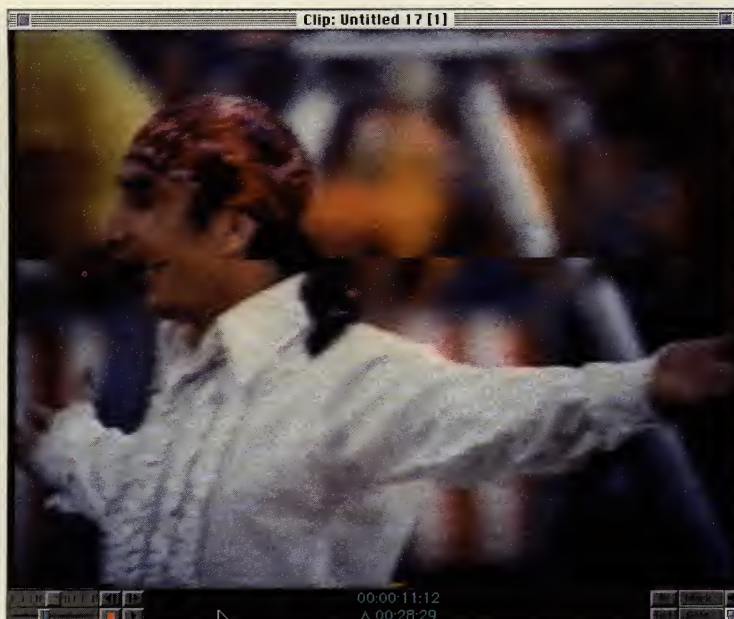
Some special issues arise with a product this complex and this demanding of the host system. A special SCSI card in the Mac IIx processor direct slot, for example, did not work with DigitalFilm, preventing us from testing at higher transfer rates on that computer.

And as we were finishing the review, SuperMac told us that some motion hiccups could be eliminated on a Quadra 950 by keeping a disk in the floppy drive while recording.

We also experienced a few sporadic freezes when playing back video captured on the Quadra. These may have been related to the disk array, the Quadra's memory or software. We were unable to isolate the problem, and SuperMac reported having trouble reproducing it in the lab.

The company mentioned another problem, in which DigitalFilm freezes when it encounters complete video noise, such as that produced by playing back blank tape, but this should not be an issue in normal circumstances.

In Premiere 2.0.1, the Sound Off option, for recording video only, did not work, but the Video Off option operated correctly. We got



errors when we tried to record without preview in Premiere, and SuperMac verified the glitch, and we encountered ghosting effects in the preview window while recording at full speed and the large image size. (The captured movie is unaffected by the ghosting, however.)

One final issue to note is the physical space taken by DigitalFilm's combination NuBus card and daughterboard. SuperMac puts an insulating shield on the daughterboard where it might contact an adjacent NuBus card, but it would be wise to position DigitalFilm where no other card touches it.

The DigitalFilm manual is very good, and it includes an index. A product update notice — three mimeographed sheets — covers important tips that did not make it into the manual.

Conclusions. DigitalFilm represents a new state of the art for QuickTime, but Mac-based video has further to go before it can compete with the quality of analog video.

Where digital video is appropriate, such as integrating video into computer-based multimedia or sketching out movie concepts, DigitalFilm boosts QuickTime to a far more useful level.

Some might also find it helpful for off-line video editing, but that process involves the interminable Make Movie function in Premiere, which sometimes seems slower than editing analog tape. This is not a fault of DigitalFilm or Premiere so much as of the medium and the state of technology.

On the other hand, complicated edits and effects, which would take a roomful of expensive analog hardware, are handled easily in the digital domain.

DigitalFilm is clearly aimed at customers who can afford a substantial investment in hardware, but it represents a good value as a comprehensive system for acquiring, editing and playing back

both QuickTime audio and video.

Although a Quadra is highly recommended, DigitalFilm still performs much better than less expensive QuickTime capture boards on a IIx with limited disk performance, where built-in support for a variety of Mac monitors is also valuable.

IN BRIEF



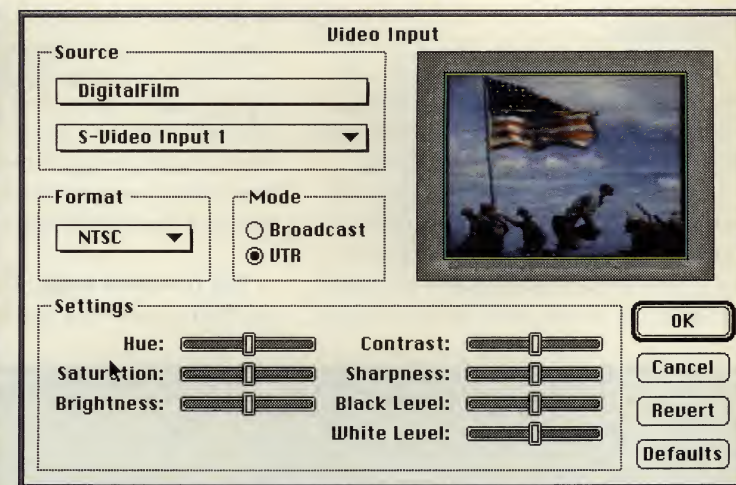
TimeVision 1.0

Nonstandard interface slows time-management program

Powercore Inc.'s TimeVision 1.0 for the Macintosh, a \$99 time-management application, is the latest entry in the Mac personal information management sweepstakes. Powercore previously has published DOS- and Microsoft Windows-based time-management tools, and TimeVision's suite of features reflects the company's collective experience in this field. However, the user interface is nonstandard and all-too-frequently confusing.

Most of the standard features that time-management users have come to expect are here. TimeVision provides a calendar that you can view by day, week, month or in a list view. You can tag events with the type of event and with user-definable categories. Repeating events also are supported. You can move events to another day by clicking and dragging, and you can attach standard alarms to any event.

Once you specify an event, TimeVision summons the PowerEdit Palette, a floating palette that you use to describe the event and



The frame at left, captured from Media-Pedia stock footage, illustrates one of the motion problems that can occur if the Mac host performance is anything less than state of the art. The Video Input screen, above, lets you adjust video setup parameters by trial and error to match DigitalFilm's output with its input.

As competition heats up in this market and QuickTime continues to evolve, we expect that DigitalFilm will mature into an even more capable system in the future.

SuperMac Technology is at 485 Potrero Ave., Sunnyvale, Calif. 94086. Phone (408) 524-

4702; fax (408) 735-7250.

During our testing, we used stock footage in Hi-8 format from Media-Pedia Video Clips Inc., located at 22 Fischer Ave., Wellesley, Mass. 02181. Phone (617) 235-5617; fax (617) 237-3440. The company offers the collection in several formats. □

modify the beginning and ending time and the type and category of events. You create and assign up to 64 categories with the PowerEdit Palette. While this number is probably excessive for personal use, it has meaningful uses in some business situations. A sales manager, for example, could assign categories by salesperson or sales region to help track activity.

TimeVision offers two ways to create and manage simple notes, although neither is automatically attached to any event. Memos are text files of up to 32,000 characters. Any application that can read a text file can open a TimeVision memo. Note cards are similar to memos except that they contain a 35-character index field and are not stored in text format. You can sort note cards based on the index field and also scan them with a Quick Scan command that is similar to the HyperCard Show All command. Anyone managing a schedule can make use of memos and note cards, although they would be more useful if they could be automatically tied to a specific event or series of repeating events.

The tone of the manual is, frankly, too cute, and probably inappropriate for a business product. The manual is also poorly written, incorporating both atrocious grammar and several omissions. This is too bad because you're going to have to read almost every page to be able to navigate TimeVision's murky interface. There are no sample files, which would be extremely useful, especially if they were used with the tutorial.

TimeVision incorporates a num-

ber of inexplicably bad interface design elements. If you decide to use this software, here is one hint that will save you a lot of time and angst: When you create an event, you must dismiss the PowerEdit Palette before you can create another event, despite what the balloon help-like pop-up box announces as you drag the cursor over the time bar. A "Done" button that dismisses the time bar would solve this problem. To be fair, we should point out that the manual does state that "the time bar has many surprises."

The lack of an installer is a hint of further unpleasantness ahead. For example, you cannot resize windows. This means that users managing complex schedules will have to work in a window that fits on a 9-inch screen even if they're working with a very large monitor that could be used to view more of the schedule at any one time. You can, however, move windows by dragging. When you do so, the cursor changes into an icon of a semi-truck, the implications of which escape us.

TimeVision also lacks some features that are becoming de facto standards, such as network access to schedule files. There are several very good time-scheduler managers currently available, including Now Software Inc.'s Now Up-to-Date, Team-Building Technologies Inc.'s AgentDA and After Hours Software's DateBook. Until Powercore radically overhauls the TimeVision interface, any of these is a better choice.

Powercore Inc. is at 1 Diversatech Drive, Manteno, Ill. 60950. Phone (815) 468-3737; fax (815) 468-3867. — By Dale Coleman

Dimensions

From Page 50

ed 4 Mbytes solved our problems, although rendering time remained the same. The rendered file weighed in at 320 Kbytes, while the original FreeHand outline was 20 Kbytes.

To complete a complex rendering of a silhouette rotated 360 degrees, Dimensions required a partition of 8 Mbytes and took more than 20 minutes each time we rendered it. Clearly, the simpler your object, the short-

er your wait. Tales of terribly long rendering times are commonplace among users of high-end 3-D programs, and Dimensions' rendering times also could take on grotesque proportions with very complex objects. Your best bet is to render complex artwork as component parts where possible and reassemble them in a drawing program.

The rounded edge. You create a 3-D wireframe either by using the primitives

tools or importing and extruding or lathing line art. You also can use Dimensions' nifty bevel function to do this. Bevels are simple 2-D lines such as rounded corners, which when combined with another shape and extruded can produce 3-D objects such as perfume bottles or boxes with soft corners.

Creators of package designs will appreciate Dimensions' capability to map 2-D designs onto a 3-D object. For example, this lets you

take a wine label created in Illustrator and wrap it around a wine bottle.

To map a design, you first build an object then open a dialog box that shows various surfaces of your wireframe object onto which your 2-D artwork will be mapped. You then import your artwork and scale, rotate and place it as needed. Placing art is the tough part: It takes a while to figure out how much artwork will fit on a given surface. Adobe addresses this problem by letting you export surfaces to your drawing program as a set of guides. After aligning your artwork in these guides, you then reimport it into Dimensions. Beware that if you alter the guides in your drawing program, map and guides will no longer fit.

Mapping is fairly involved, but the results can be stunning.

Learning curves. Adobe does not claim that Dimensions is a high-end 3-D program that can simulate reflections and refraction and other elements of photo realism. Nor are models built in Dimensions available for import into other 3-D applications (except as 2-D art). On the other hand, you should not mistake Dimensions for a mere utility. The possible effects are outstanding when compared with those you can build in Illustrator or FreeHand alone. If you are new to 3-D, Dimensions involves learning new skills. Adobe has gone to great lengths to make 3-D easily accessible to denizens of the world of two dimensions. When you draw a primitive, for example, not only does a rectangular bounding box indicate the size of the object, but the letters x, y and z appear on its sides to indicate the object's orientation.

The Dimensions manual, although slim, is generally thorough in its explanations and will help you become productive. The manual did leave us in the dark in one area: Once you have created a custom bevel, it doesn't explain that you then need to save it to Dimensions' Bevel Library folder to use it. Adobe's technical support proved both very informed and helpful.

Conclusions. Dimensions' interface could be smoother, feedback about selected objects needs to be added, and the Canvas import snafu will leave many users hanging. Otherwise, Adobe Dimensions is a truly innovative tool. Being able to create 3-D artwork from a 2-D original and then edit the resulting 3-D output as a regular PostScript file undoubtedly will introduce 3-D to a greatly expanded audience. Dimensions is sure to be a big hit.

Adobe Systems Inc. is at 1585 Charleston Road, P.O. Box 7900, Mountain View, Calif. 94039-7900. Phone (415) 961-0911; fax (415) 961-4810. □

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SYSTEM 7 COMPATIBILITY

Adobe Dimensions 1.0

Balloon help	No
TrueType	Yes
Publish and subscribe	No
Apple events	Yes
32-bit addressing*	Yes

*According to vendor.

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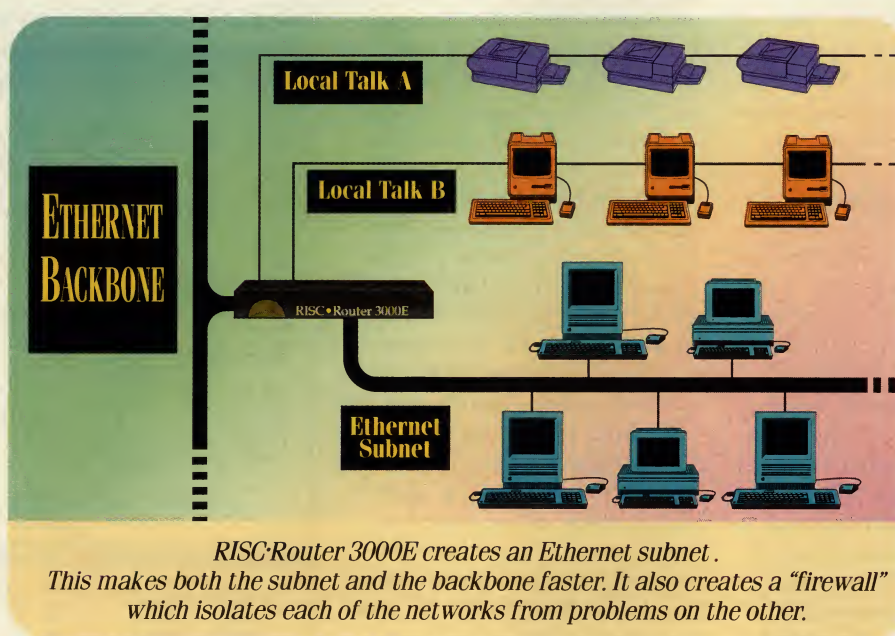
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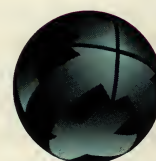
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Q: How can I get more information, and complete technical specifications?

A: All of our products are available through Ingram Micro and Tech Data, or call us toll free at 800-356-0283. We'll be happy to send you complete information on RISC•Router 3000E, and our other Macintosh Ethernet products.

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Compatible Systems
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Scitor's Project Scheduler turns 5

Has valuable tools for corporate users

By Mel Male

When Scitor Corp. released Project Scheduler 5 at the end of 1992, the company not only added a multitude of general enhancements, but it provided the sophisticated tools necessary for multiproject analysis and management. This last feature is of special consequence to corporate users.

As a result of these changes, Project Scheduler is now a major contender in the competitive midrange desktop project-manager market. Its notable competitors include Claris Corp.'s MacProject Pro, Micro Planning International Inc.'s Micro Planner Manager and Microsoft Corp.'s Microsoft Project. The new version is priced at \$695; upgrades from Project Scheduler 4 are \$250.

All of the midrange project-management applications perform a similar function: After defining the tasks necessary to accomplish a project and their required sequence, you assign resources (people, equipment and materials), and the soft-

ware determines the overall length and cost of your plan. This, however, is greatly simplified; the differences between these applications lies in the sophistication, versatility and scope of the scheduling, resource-allocation, cost-control and reporting tools provided.

Project Scheduler is designed to run on any Macintosh from the Plus up, with at least 1 Mbyte of free RAM. It requires System 6 or later and is System 7-compatible.

The Mac version of Project Scheduler 5 is file-compatible with Scitor's Project Scheduler 5 for DOS and Project Scheduler 5XL for IBM Corp.'s OS/2, so you can track projects and update schedules in a multiplatform environment.

Multiple workgroups. Corporate projects often involve the efforts of multiple workgroups with decentralized management—project teams, functional departments and even different corporate divisions. With Project Scheduler 5, each participating group can create its own project file defining its plan for its particular responsibilities. To integrate activities between workgroups, the individual project files are merged and consolidated, enabling their display in a single integrated chart. Cross-project dependencies then are identified and defined using Project Scheduler's linking function. In addition, you can define group-level jobs and milestones and enter them into the integrated project network. When the merged-and-consolidated file is saved, each of the separate project files automatically is updated with new tasks that define the date dependencies for cross-project links. As an individual project's manager changes his project's schedule, the effect of these changes on other projects is displayed as a conflict line that includes each job's negative slack.

Cross-project resources. In Project Scheduler, resources are defined in a resource table that is stored as part of a Project Scheduler table file, separate from the project files. This enables you to assign any resource defined in a resource table not only to multiple jobs within a project but across multiple projects as well.

To resolve overallocations and to assess their impact on individual projects, all projects sharing a common resource table are first loaded into memory. In this mode, leveling resources that are used by multiple projects causes jobs to be moved as if all the jobs from all the projects

were in a single project. To monitor the effect of resource-leveling actions, you can display a Gantt chart that summarizes all projects in memory for a top-level view of each project's status. While using this chart, you can select and open an individual project quickly for a detailed assessment.

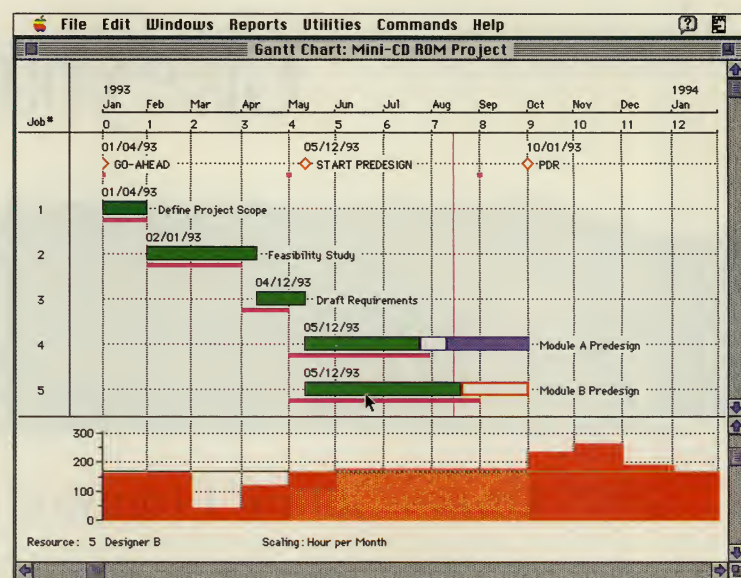
Resource-table features new in Project Scheduler 5 include a four-level, user-selectable sort capability; support for automatic renumbering; and cut, copy and paste. You now can modify resource numbers and names without disrupting allocations. You also can now resize or hide from view the columns of Project Scheduler's resource table, as well as those of its other tables.

Hierarchical structure. Project Scheduler's Subproject Summation function enables you to summarize all the details of one project into a single job. Several new options for the reconciliation of master and subproject schedules are available: You can transfer a subproject's start date as a dependency in the master project, transfer the calculated job-start date from the master project to the subproject's start-date field, and define a subproject by matching the Job Name field in the master project with the subproject's Name field.

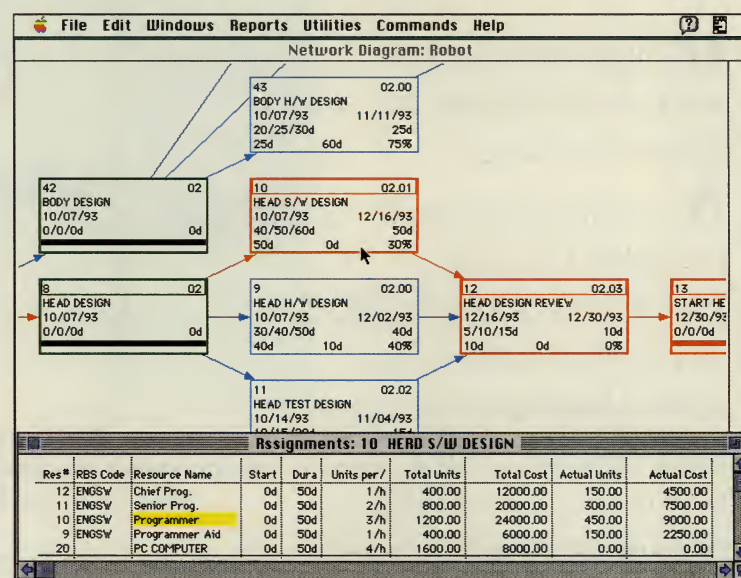
To make the Network Diagram easier to read, subproject nodes now are indicated with rounded boxes.

Expanded organizational tools. Tree Structure charts and a Tree/Code Conversion Tool have been added. These automate work breakdown structure (WBS) and organizational breakdown structure (OBS) code generation and management. You can create a Tree Structure chart manually with point-and-click tools, or Project Scheduler can draw one for you. If you elect to draw the Tree Structure chart first, the WBS and OBS codes may be derived automatically from the relationships established in the tree structure. Both WBS and OBS project structures can be displayed and reported in a tree format, and the Gantt chart and report data can be summarized at any level within either of these two structures. To summarize resource usage, Project Scheduler contains a Resource Breakdown Structure field.

Gantt-chart enhancements. You may place user-selectable text labels above, below, to the right or



Project Scheduler 5 includes new Gantt-chart options such as time-period identifiers; a project-overview line; and text above, below, to the right or left of the Gantt bar. A Resource histogram, shown at bottom, offers resource units scaling options.



With the new version of Project Scheduler, you now have substantial control over the number of lines displayed within each node of Network diagrams and the contents of each node. The Assignments table lists details about resources used by each node.

to the left of the Gantt bar, and you now can choose the type characteristics for the text displayed in Gantt charts and in network diagrams. A project-overview line can be displayed at the top of the Gantt chart to provide top-level visibility. The milestones to be displayed are defined by the user.

During Gantt summarization, designated jobs and milestones, along with annotations, can be displayed on a single line.

You may designate specific jobs to be displayed exclusively in WBS or OBS charts or, if you wish, you can keep them hidden in all charts.

Another option lets you designate specific jobs for inclusion in project or summary lines, either with or without annotations, and you can decide whether these jobs are to be summarized always or never.

Reports improved. You now can select and change font styles and sizes for text reports. You can add header fields for the project's

manager, schedule revision number and date. Options to align histogram and cost curves with the Gantt report calendar and the ability to apply job filters to the Histogram and Cost Graph also are provided. You now can preview reports, predict the number of pages required, print reports to a disk file and print on E-size paper.

Project Scheduler now allows you to build a list of reports from a menu of options and save the list for future use.

Scitor claims that Project Scheduler's report-generating capability has been completely rewritten, but it still has some signs of being imported from the DOS world, and it lacks the degree of flexibility most Mac users desire. For example, while you can modify the format of the nine built-in reports, you are not permitted to create your own report form from scratch. Nor does the program support the insertion of graphics, such as company or project logos, in report headers.

score card

Project Scheduler 5

Scitor Corp.

Version tested: 1.0a

List price: \$695*

Overall value ♦♦♦♦

Project Scheduler 5 provides powerful tools for scheduling, resource allocation, cost control and reporting. Its multiproject analysis and management environment allows consolidation of separate projects, the establishment of task dependencies that cross project boundaries, and either automatic or manual leveling of resources across multiple projects. Gantt charts and report data may be summarized at any level within either of these two structures, but Project Scheduler does not offer user-defined data fields or support publish and subscribe, as its competitors do. Also, its reports do not provide the flexibility many Macintosh users require.

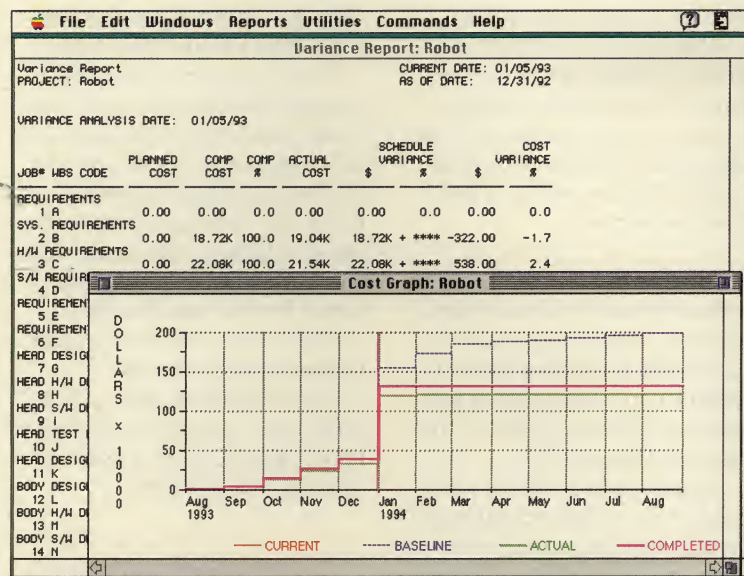
Performance ♦♦♦♦

Features ♦♦♦♦

Ease of use ♦♦♦♦

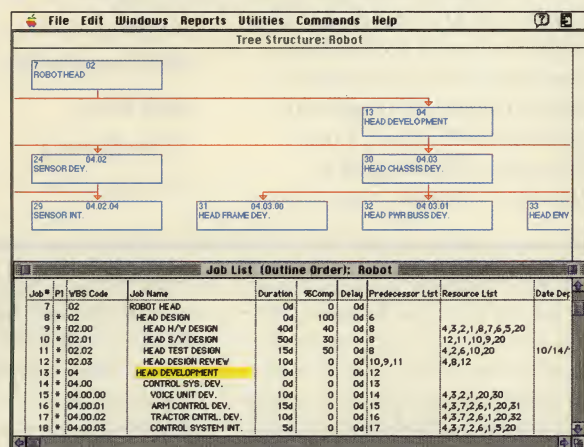
Documentation/support ♦♦♦♦

*Upgrades from Project Scheduler 4, \$250.



Although lacking in formatting flexibility, Project Scheduler 5's Variance Reports and Cost Graphs can provide valuable assistance in controlling project costs.

Project WBS and OBS structures may be displayed and reported in a tree format. The Tree Structure charts can be used to order and indent jobs in the Gantt chart and Job List.



The competition. Compared with its competition, Project Scheduler provides more sophisticated multiproject environment features than either MacProject Pro or Microsoft Project, but it lacks the valuable, nearly seamless integration with spreadsheets and word processors provided by Claris and Microsoft.

Project Scheduler offers support for multiproject analysis and management that is lacking in Micro Planner Manager. That product, however, offers even more powerful and sophisticated scheduling and cost-tracking tools, is more intuitive to use, and has more flexible reporting than Project Scheduler.

Documentation and support. Convenient but all-too-brief, context-sensitive on-line help is available in Project Sched-

uler's Documentation window. Balloon help is not used. Project Scheduler's printed documentation consists of a Tutorial Manual and a Reference Manual; the former is easy to follow and useful in getting started, but the latter is lacking in organization and depth.

Scitor offers training and consulting services and provides technical support between 8 a.m. and 5 p.m. Pacific time.

Conclusions. Project Scheduler Version 5 contains powerful tools that are especially valuable to the corporate user: support for multiple workgroups, cross-project resource management, subprojects and expanded organizational tools, to name a few. Users at all levels will appreciate the numerous across-the-board enhancements to its charting and tables.

If you need multiproject, multiplatform project management at a midrange level, Project Scheduler is well worth considering. We would, however, suggest you keep a watchful eye on the other products in this competitive category.

Scitor Corp. is at 393 Vintage Park Drive, Suite 140, Foster City, Calif. 94404. Phone (415) 570-7700; fax (415) 570-7807. □

Dynodex 3.0 improves Portfolio's holdings

Memo, sync features are key enhancements

By Dale Coleman

The quest for the ultimate personal name-and-address list management product continues. Portfolio Software Inc. recently released Dynodex 3.0, an enhanced version of its popular \$89.95 entry into this field.

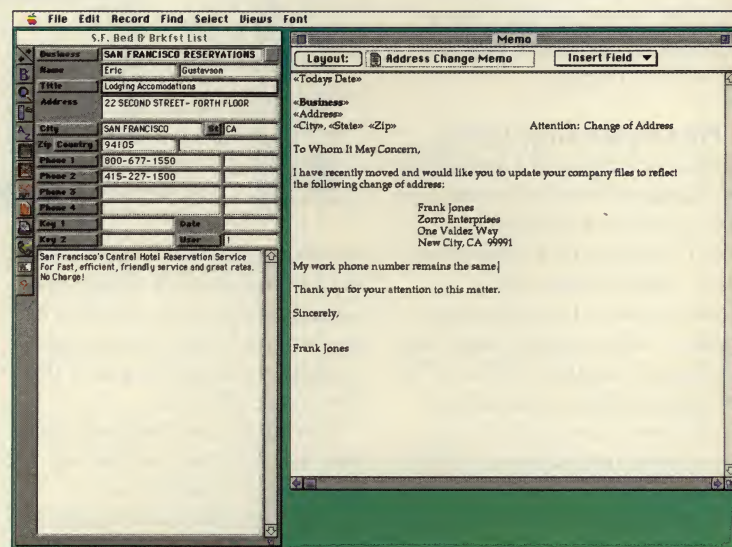
The list of new features in Dynodex is extensive, improving almost every aspect of the program. At the top of the list is the Memo feature, handy for creating notes or mail merge documents. New copy and paste functions help you to quickly integrate data into other application documents. New record-selection commands make printing, historically a strong feature in Dynodex, even more efficient. Another major enhancement, file synchronization, makes it easy to keep multiple copies of the same file up to date.

Data manipulation. Entering and manipulating data efficiently is extremely important, and Dynodex makes it as painless and accurate as possible. Data entry is significantly enhanced by Shorthand Keys, which is very similar to the glossary feature in many word processors. This feature lets you type just enough characters to identify the entry, at which point the application fills in the rest of the field automatically. In addition to saving time, this helps eliminate errors and guarantees consistency. Shorthand Keys words are easy to define, are recognized by field, and may be either specific to a file or global.

Dynodex long has had a feature that automatically capitalizes words when you enter them in a field, and Version 3.0 adds the capability to customize the formatting of the telephone fields in Dynodex. This is helpful to ensure consistency throughout a file.

Once data has been entered into a Dynodex file, you want to be able to do more than just look for a specific record. You can save search criteria that you use often as a Frequent Find menu item, and the Frequent Selections command works in a similar manner. When you specify record-selection criteria, Dynodex gives you the option of adding that criteria to the Frequent Selections submenu. Every time you select the item, Dynodex selects a subset of the entire file based on the saved criteria, making it simple to perform operations like mail merges.

Dynodex also lets you add



One of the additions in Dynodex 3.0 is a Memo feature, which adds mail merge capabilities to the program's already strong print functionality. This feature can be used as a simple word processor to send faxes, form letters and simple correspondence.

import and export settings to the appropriate menus.

Take a memo. The new Memo feature is a deceptively simple word processor suitable for a variety of everyday tasks, including creating short notes, faxes and other documents.

Its best feature is that you can use it to create sophisticated mail merge documents based on information in the open Dynodex document. You can specify the range of data to be a single record, a selection of records or all the records in the open Dynodex document. If Dynodex 3.0 included a spelling checker and a ruler, many users could dispense with regular word processors altogether for many common word-oriented tasks.

Dynodex offers three methods for copying information to the Clipboard. The Copy Record command copies the entire active record, empty fields and all, separating each record by tabs. You can use this command to mail a record

or records to a co-worker. The Copy Label command copies just the name and address information from the record and can be localized for the United States and international addresses.

If neither of the two preset Copy options are appropriate, you can take advantage of the Copy Special command. It's similar to the Copy Label command but gives you control of which fields to select. You can customize the Copy Special command with up to three trailing characters after a field, allowing you to create custom address labels and other useful items. Copy Label and Copy Special would be significantly more useful if Dynodex provided a scheme that let you specify them on a file-by-file basis rather than globally. We also would like to see the capability to configure Copy Special like the Frequent Selection command.

File import and export support in Dynodex are excellent. You can export in tab-delimited or comma-delimited format, so Dynodex data

See Dynodex, next page

score card

Dynodex

Portfolio Software Inc.

Overall value ♦♦♦♦

Version tested: 3.0

List price: \$89.95*

The latest version of Dynodex aspires to a higher level of contact-manager productivity. Chief among the new features are a memo writer suitable for creating notes and mail merge documents, improved copy and paste options, and record synchronization between two Dynodex files. The new features, together with Version 2.0 features (especially its ability to print to almost any known address book, envelope and card format), nearly make Dynodex 3.0 an excellent product. The documentation, however, needs some attention, as do some minor details of the file-synchronization feature.

Performance ♦♦♦♦

Features ♦♦♦♦

Ease of use ♦♦♦♦

Documentation/support ♦♦

*Upgrades \$24.95; free if Version 2.0 was purchased after Aug. 1, 1992.

SYSTEM 7 COMPATIBILITY

Project Scheduler 5 1.0a

Balloon help	No
TrueType	Yes
Publish and subscribe	No
Apple events	No
32-bit addressing*	Yes

*According to vendor.

Dynodex *From previous page*

is accessible by all popular word processors' mail merge facilities. There's also a step-by-step procedure for converting After Hours Software's TouchBASE files to Dynodex 3.0 format.

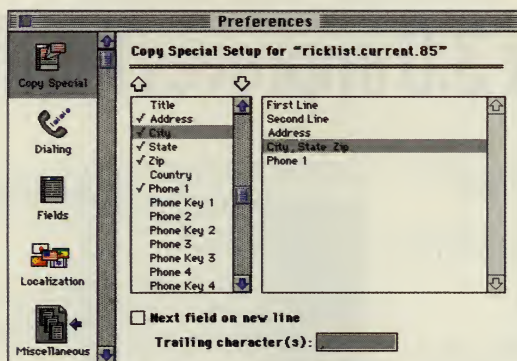
Print it your way. Printing capabilities in Dynodex 3.0 essentially are unchanged from the previous version, but they still merit special mention. You can print in five major formats — address books, labels, Rolodex-style cards, envelopes and memos — with complete control over text font, style and size. The list of 70 commercial address book, card and envelope print-layout formats supported is the most inclusive available anywhere. But if you need a print layout that isn't provided, or if one of the provided print layouts doesn't print properly, Dynodex lets you modify the print layout as needed.

Record-level synchronization. While the importance of file synchronization might seem insignificant at first glance, Portfolio's inclusion of this feature offers immediate appeal to both PowerBook and network users. Rather than simply replace the older version of a file with the newer version, Dynodex synchronizes files on a record level.

Record-level synchronization has many important practical uses. You could add the names of new contacts to your PowerBook's Dynodex file during a business trip, while your associate at the office also could add new contacts to a copy of the file. Synchronizing the two files after your trip would ensure that both you and your associate have identical data. In a workgroup environment, several users could synchronize their local copies of a Dynodex file with the master copy residing on the server, thus ensuring that each user's local copy was as current as the last synchronization.

As described in the documentation, both of these situations can be handled with ease. You simply open the local copy of the file, select the file you want to synchronize it with, and click. Dynodex 3.0 then compares each record in the two files, and when duplicates are encountered, it updates the record in the file with the older date with the record from the more recently modified file. If both copies of the record have been modified since the last synchronization, Dynodex places both modified records in both files. These records are clearly marked as duplicates, so you can manually resolve the conflict.

We initially experienced some troubling inconsistencies in the behavior of Dynodex 3.0 file synchronization until intuition revealed a simple (and some might



The Preferences setting for Dynodex 3.0's Copy Special command lets you select which fields to copy to the Clipboard. You can configure this command to include the fields you want in any order, and with trailing characters.

say obvious) fact not mentioned in the documentation: Two identical copies of the same file must first be synchronized before you can successfully synchronize copies of that file that are different.

Synchronization works well and is very powerful, but it needs some fine-tuning. Naturally, you shouldn't attempt to synchronize a file with one that is already open. But since you may have no way of knowing the status of that file, Dynodex informs you that the file is locked and will be opened as read only. Of course, the file isn't opened at all, even as "skim quickly only."

Performing a synchronization also incorrectly resets the default location of the Save As command to the last location of the file with which you attempted to synchronize your local file. These problems are minor, however, when weighed against the benefits that Dynodex's synchronization feature offers.

Documentation and support. One clue that the documentation needs some attention is the appendix listing new features. It states that to learn about these new topics, "please refer to the page number following the topic listing." But

there are no page numbers listed.

While the documentation and software are littered with the many ways to contact technical support, technical support is available by voice phone and fax only four hours per business day (between 1 p.m. and 5 p.m. Eastern time).

Conclusions. Sometimes when software enters its third or fourth iteration, the addition of new features result in a product harder to use and more clumsy than its predecessor. This is decidedly not the case with Dynodex 3.0.

Dynodex 2.0 was already a very good product. Dynodex 3.0 is even better, and it lets you work with your data almost any way you want. Many features that remain unchanged from Version 2.0, such as the intelligent phone dialer, are superb. The Dynodex desk accessory gives you quick access to the most important features without having to launch the application. Dynodex for Microsoft Corp.'s Windows, which shipped in December, includes most of the

Dynodex 2.0 feature set and is file-compatible with the Mac version.

The new features demonstrate a thorough understanding of the needs of real-world users. PowerBook users will be impressed with the powerful file-synchronization feature, its minor shortcomings notwithstanding. The documentation needs work, but its defects shouldn't seriously detract from the overall utility of Dynodex itself or affect the product's premier position in its field.

Portfolio Software Inc. is at 10062 Miller Ave., Cupertino, Calif. 95014. Phone (408) 252-0420 or (800) 729-3966; fax (408) 252-0440. □

SYSTEM 7 COMPATIBILITY

Dynodex 3.0

Balloon help	Yes
TrueType	Yes
Publish and subscribe	No
Apple events	Yes
32-bit addressing*	Yes

*According to vendor.



Was reviewer barking up the wrong Tree?

While reading the review of our program Tree (MacWEEK, Dec. 14, 1992) I was unpleasantly surprised by the incorrect statement about pasting a tree image into another image and by the lack of professionalism in assessing visual quality of generated trees.

Anybody who says that pasting a tree into another image in Adobe Photoshop is a "time-consuming and error-prone" procedure does not know much about Photoshop and has not read the Addendum to the Tree manual. The manual spells out the steps for this procedure clearly, and if the user follows them, it takes seconds to do it without any danger for making errors. There is even a simpler method not mentioned in the manual that involves only one extra step of adjusting paste controls.

The other, more serious flaw of the review is its complete failure to report objectively on the visual quality of generated trees. Visual quality is hard to measure because it is a task-dependent and highly subjective feature. If an evaluation method is not well thought through, the

evaluation may easily become opinionated and, as such, provide no value to the reader. This is exactly what happened in this review.

To measure quality of trees properly, you need to define and perform a series of tasks that would be most likely performed by architects, landscape architects and design professionals who use trees in their design. These tasks should be used for assessing the visual quality of trees when placed in the background, middle ground or foreground of a scene; when placed into the real scene from a scanned photograph; when combined with CAD models; and when used to simulate wooded areas as opposed to placing trees singly, to name just a few likely settings that trees will be used for. After performing these tasks, proper report should be given in a written form and, since an image is worth a thousand words, in a visual form — by a series of illustrative examples.

Although some of the tasks mentioned might have been performed, no task was presented to the reader, neither in written form nor through illustrative examples. Instead, the reader was left with only one tree image devoid of a context altogether and words that range all the way from "stiff" and "cold-looking" to "spectacular" as if they came from two (or more) people and not only one author. All of this does not help much an architect, landscape architect or any design professional in forming their own judgment of the potential value of Tree within the context of their own work.

You will probably tell me that MacWEEK cannot afford the space

for such coverage. Well, my answer to you is this: If you do not have the resources to evaluate visual quality the right way, don't do it. By such an unprofessional approach in tackling what is one of the most important features of Tree, you are doing a great disservice to your readers.

*Bojana Bosanac, president
Onyx Computing Inc.
Cambridge, Mass.*

MacWEEK replies:

The Addendum to the manual we received regarding Photoshop was inadequate and not very clear. Onyx has since shown us a better version of the Addendum. However, we stand by our statement that pasting completed trees into Photoshop is time-consuming. This, we consider, is a minor point when compared with Tree's value.

We also feel that any users interested in Tree would evaluate the visual quality of completed trees on their own. It is not MacWEEK's role to reproduce vast quantities of output — we evaluated Tree's operation and found it largely satisfactory.

User all worked up about Works review

I didn't know whether to laugh or cry after reading the review of Microsoft Works 3.0 (MacWEEK, Nov. 16, 1992).

Stable? In one three-hour session I found 43 separate bugs and had 11

screen freezes. These included failure to print some output on a [Hewlett-Packard Co.] Desk-Writer, failure to update the Preview document title and occasional failure to display font lists.

Four-star performance? All the bells and whistles make it run like a rendering program (on my accelerated Mac IIci with 32 Mbytes of RAM). In the database module, I found myself reaching for the reset button even when the program was executing properly.

What happened? The product was eight months behind schedule. Top programming talent was engaged elsewhere. Market share was eroding rapidly in the crowded integrated application sector. Result: Microsoft Corp. elected to ship shrink-wrapped beta.

Sure, many of the bugs eventually will be fixed. But the version number will stay 3.0 forever to spare the expense of sending fixes to early registered owners. At least, that was the lesson learned from Works 2.0.

I have no problem in general with MacWEEK just reworking corporate press releases for copy. However, a product review raises higher expectations.

*Tom Pringle
Emerald Consulting, Eugene, Ore.*

MacWEEK replies:

We have found a few bugs since our review of Works 3.0, but overall our experience with the program has not been problematic.

Send your comments to MacWEEK Reviews Department, 301 Howard St., 15th Floor, San Francisco, Calif. 94105. MCI (323-1203); fax (415) 243-3650. Include your name, address and phone number. We reserve the right to edit for clarity and length.

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PRODUCT WATCH

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Researchers, statisticians are going by the numbers

With Mac statistical-analysis packages, researchers can spend less time programming and more time analyzing numbers.

By Larry Stevens

The Mac's graphical interface when applied to statistical-analysis applications solves a major problem. Virtually all researchers who work with numbers are trained in statistics, but few have the programming skills needed to work with traditional statistical-analysis packages.

Consequently, researchers typically team up with statisticians, who translate the researchers' requests into a program that will output the needed report.

This method is time-consuming and sometimes frustrating if the researcher's request isn't exactly mirrored in the statistician's code and, more importantly, doesn't allow the researcher to experiment with and explore data on the fly.

Mac statistical-analysis packages, on the other hand, for the most part provide easy-to-use graphical tools for manipulating data without programming experience.

To be able to explore data interactively, Jim Malley, research mathematical statistician at the National Institutes of Health in Bethesda, Md., uses Data Desk from Data Description Inc.

"When you can change parameters as you work and immediately

see how the changes affect the plot, you have a lot of control over your research," he said.

Exploratory data analysis.

According to Malley, Data Desk has the strongest tools for exploratory data analysis (EDA), a process of displaying and manipulating data in real time. With Data Desk, most parameters can be altered by using on-screen sliders.

Data Desk Version 4.0, released last month, provides more tools and expands the types of data and size of files to which the graphical tools can be applied, according to the company.

Malley said that before buying Data Desk, doctors often would come to his office to discuss a specific type of report. Malley, with the help of other statisticians, would create the report and send it to the doctor.

This exchange made research a cumbersome process as doctors and statisticians engaged in a series of iterations until the report was able to generate the necessary results.

"Now when a doctor comes in, I put him or her in front of a Mac, and in 20 minutes they're manipulating five parameters using sliders and understanding viscerally how those parameters affect the science."



GARY JAEGER

Statistical techniques.

Dr. Graham Nichol, a research fellow at Ottawa Civic Hospital in Ottawa, Ontario, uses JMP (pronounced "jump") from SAS Institute Inc. because, he said, "it provides the largest number of statistical techniques."

Another advantage of JMP for Nichol is that it can send and receive data from SAS' other product, the SAS System, which is virtually a de facto standard for statistical analysis, especially in the medical field.

The SAS System runs on IBM Corp. mainframes; Digital Equipment Corp. and Prime Inc. minicomputers; as well as a wide array of Unix workstations, including those from Sun Microsystems Inc.,

Hewlett-Packard Co. and NeXT Computer Inc.

Nichol said JMP strikes a balance between offering icon-based EDA and more-traditional hypothesis-testing statistical methods.

"If you have a set of data and are trying to find a relationship among different variables, it's easiest to do that when you have the widest variety of techniques. I think JMP excels in that area," Nichol said.

Paul Gordon, director of biomedical research at Apotex Research Inc., a large pharmaceutical company in Weston, Ontario, agreed that the SAS System has become a standard among researchers.

As a result, when he prepares a report for the U.S. Food and Drug Administration or Canada's Health Protection Branch, he uses the SAS System. "When something is created with SAS, people tend to trust it more," he said.

Quick-and-dirty analysis.

But when Gordon, who studies the disposition and absorption of drugs in the human body and other organisms, needs to do some "quick and dirty analysis," he turns to StatView from Abacus Concepts Inc.

"Our work is very statistically and mathematically intensive," he said. "For that reason, and to be in sync with other researchers, we use the SAS System a lot. But SAS is also very labor-intensive. If we want a snapshot of how our research is going, if we need interim data, StatView lets us get it quickly."

StatView's newest version, 5.2, even supports QuickTime, so users can view a series of system plots or graphs as QuickTime animations.

François Christen, president of
See Statistics, Page 61

Extracting data from statistical-analysis programs

Most statistical-analysis packages provide a means of creating charts and graphs out of the data that has been entered and massaged.

Sometimes, though, there is a need to go in the opposite direction — taking the charts generated by others and re-creating the underlying tables. Two programs, digiMatic from Famous Engineer Brand Software and FlexiTrace from TreeStar Inc., do just that.

First you scan in a chart, diagram, blueprint, map or any other document that contains measurable points. Next, using either of these programs, you set the values for the x and y axes and click on any points. The program creates a table of the values you clicked on.

Dick Ahrenkiel, principal scientist and group leader at the National Renewable Energy Laboratory of Golden, Colo., uses digiMatic to create tables from graphs he finds in scientific journals.

"We do a lot of research with journals. And part of our work involves re-creating experiments found in those journals,"

Ahrenkiel said. "There are often graphs, but the tables that created them may not be available, or we can't contact the author."

Two years ago, when Ahrenkiel needed to extract data from a graph, he would measure the points with a ruler, then convert the measurement in the graph to inches and enter the figures into a spreadsheet. "It was time-consuming and not very accurate," he said.

Now he simply scans the journal page into his Mac, sets the measurement units and the axes in digiMatic, clicks on the points to measure, and the table is automatically generated. "The job has gone from tedious and imprecise to instant and very accurate," he said.

Mark Tuominen, a researcher at the department of physics at Harvard University in Cambridge, Mass., doesn't need to find data from journal charts created by others. He uses FlexiTrace to extract data from charts created in his own lab.

He is working on a single electron transistor, a tiny device that he hopes may some-

day supersede today's transistors. The basic measurement in most of his experiments is current as a function voltage. As he uses batteries to alter the voltage, his data-acquisition machines measure the current.

It would seem a simple matter to use a data acquisition card and software such as National Instruments Corp.'s LabVIEW 2 to capture the data and then display it in chart or table form. But there was a hitch.

"The experiment is so sound-sensitive that the hum of the computer threw off our measurements," Tuominen said. The only equipment he could find that was silent enough for his job was an analog machine that produced a paper chart. "We had to measure and copy the information off the charts and place them manually in tables."

Now using FlexiTrace and a scanner, Tuominen is able to click at points on the chart, and his table is created automatically.

Tuominen still is looking for a way to use a computer for his experiment. But until he does, FlexiTrace is making his life much easier. — By Larry Stevens

Computer insurance contracts: Is your company covered?

*Knowing
what to look
for in an
equipment
insurance
policy can
mean the
difference
between
peace of
mind and
disaster.*

By Bob Weibel

Do you feel lucky? When it comes to computers, most users don't, hence it's not a question of whether to insure them, but how to do it adequately and economically. While hardware repairs can put a nasty wrinkle in your cash flow, service contracts that cover equipment breakdown are relatively expensive and don't cover every contingency.

In large corporations with hundreds or thousands of Macs, your Macs' insurance probably is handled by financial specialists trained to negotiate with insurance companies. For smaller businesses, you may have to brave the fine print and make insurance decisions yourself.

Fortunately, a little knowledge can take you a long way on how to best protect your Mac investment.

Disastrous interpretations.

Here's an insurance nightmare to avoid: Your basement home office with \$8,000 in Macs and peripherals floods during wet season, wiping out your computers. That's when you learn that although your homeowners policy covers \$10,000 worth of computer equipment and shrink-wrapped software, the limit is only \$2,500 for business use. But that doesn't matter because your policy doesn't cover water damage from natural seepage, just from broken pipes.

"In most homeowner and commercial policies, floods or ground-

water leakage generally isn't covered," said Gary Adams, claims specialist for Safeco Insurance Co. of America. "Although \$10,000 is the typical limit for computer coverage, that often drops to \$2,500 for business use."

Adams said that coverage, and the interpretation of that coverage, varies from carrier to carrier, including coverage that affects computer loss. According to Bill Petersen, State Farm Insurance Co. agent, his company, unlike Safeco, doesn't distinguish between personal or business use in the \$10,000 maximum computer coverage of its homeowners policy.

Named peril or all risk. One of the issues to consider when purchasing insurance is whether your equipment has "all-risk" or "named-peril" coverage. All-risk coverage insures for everything except a few situations, while "named peril" insures against only certain specific perils to your property. Buildings typically are covered as all risk, and contents — including computers — as named peril.

These named perils typically include theft, damage from fire, smoke, explosion, vandalism, falling objects, windstorm, hail, weight of snow, riot and artificial electrical surges.

Adams helps clarify the legalese: "If you accidentally dropped your Mac, a named-peril policy wouldn't cover it but an all-risk policy would."

Adams recommends upgrading home-office computer coverage to all risk. State Farm, according to Petersen, offers an all-risk Data Processing Equipment "floater" for computer equipment, which in his area costs only \$7.50 per \$1,000 of coverage with a \$50 minimum annual premium (prices vary regionally).

Eric Kenly, general manager of Precision Imagesetting of Tigard, Ore., goes for a mix of coverage. "Our imagesetters have all-risk coverage, but the Macs have only named peril. They didn't rate the extra coverage since we're technically savvy and know how to avoid problems."

Precision Imagesetting negotiates its own contract with All-state Insurance Co. Kenly said that physical security measures, such as locked-down Macintoshes and motion alarms, plus 24-hour



BRIAN DRAKE

business hours, help Precision get lower rates.

Replacement cost vs. cash value. It's also important to check whether your policy covers replacement cost (the cost of comparable new equipment) or cash value (the depreciated cost of your equipment).

"We have our Macs and peripherals insured for replacement cost," said Larry Cobb, president of Larry Cobb Associates, a Mac-oriented advertising and marketing firm in Grand Junction, Colo. Cobb said he doesn't plan to replace insured Macs with used equipment.

Power surges. Although sudden and accidental damage from artificially generated electrical currents, also known as power surges, usually is covered for home and business, coverage applies only to surges that originate within the building. For example, a fire in a breaker box might cause a surge in an undamaged part of the building.

However, surges originating at power substations generally aren't covered. Not only that, tubes, transistors and computer chips often are specifically excluded.

According to Safeco's Adams, the original purpose of the tube/transistor exclusion was to avoid paying for burned-out vacuum tubes, although Adams said that Safeco tends to interpret the clause less strictly.

Even with all-risk coverage, damage from such external surges is also often excluded, as is damage from brownout or sudden power interruption. Insurance agents we spoke to were all loathe to make blanket statements about surge damage claims because circumstances are complex and varied.

Portable computers.

Although comprehensive commercial policies provide for portable computers, they may not

be well-covered by your home-business policy. According to State Farm's Petersen, his company's policy applies primarily at home and extends off premises only for occasional and incidental use. In other words, if you use your notebook computer away from home and it's stolen from your car, State Farm's homeowners coverage will not apply.

Safeware Inc. has specialized in microcomputer insurance for 10 years. According to CEO David Johnston, Safeware's standard policy covers power surges regardless of source. It also covers portables in transit, except when stolen from an unattended vehicle.

Service contracts. Service or maintenance contracts essentially extend your computer warranty. AppleCare, sold by authorized Apple resellers, often is the first choice you're faced with, but there are other options (see story, next page). AppleCare is straightforward, with standardized pricing and global service at more than 2,000 authorized Apple resellers.

That distribution was a chief concern of Doug Houseman, microcomputer manager for Domino's Pizza Inc. of Ann Arbor, Mich. "We have machines all over the world, and I never know when one machine is going to stay in the same place or move," Houseman said. "No one besides Apple could cover us as well."

Apple charges a yearly rate based on the type of equipment you have, which amounts to anywhere from about 9 percent to 15 percent of the CPU's or peripheral's list price.

Coverage begins after your Apple warranty expires and covers parts and labor required to get a broken-down Apple product working again. You'll need to pay for an inspection if your unit is already out of warranty.

However, accidents, misuse,

Gary Adams, claims specialist for Safeco Insurance Co. of America, noted that water damage from floods or groundwater leakage is not covered in many homeowners policies.

On-site service: Corporate self-help

Large companies can follow the example of SynOptics Communications Inc. of Santa Clara, Calif., which has the best on-site insurance coverage available: its own service center.

According to Dan Lai, technical operations manager, SynOptics performs all warranty and nonwarranty service on its 1,200 Macs. "Our computer dealer lets us service the parts under warranty," Lai said. "They drop off whatever service parts we need and pick up faulty parts we've swapped out."

Apple approves of this arrangement because all of SynOptics' Mac technicians are certified and trained by Apple. They're also periodically recertified for new Mac products.

Lai's operation also stocks parts for out-of-warranty repair, swapping out the faulty parts, which are then sent to third-party repair companies such as GE Computer Service.

"It's a lot faster turnaround," Lai said. "We don't have to send the unit out, so there's much less downtime to the user." — By Bob Weibel

Multivendor service contracts cover Apple products

AppleCare covers just Apple products, period. But other service providers can cover Apple products, in and out of warranty, along with other vendors' hardware.

ComputerLand Corp., the world's largest Apple reseller, acquired TRW's service organization and launched ComputerLand PC Care. PC Care provides many service and pricing options, in contrast to AppleCare, according to Jim Rosen, manager of service support at TRW's Fairfield, N.J., office.

You can opt to drop equipment off (depot service) or get on-site service, with return time ranging from two hours to two days. You also can pay for weekend coverage, 24 hours a day, 365 days a year, in addition to on-site technicians full- or part-time.

Rosen said that PC Care service and rates are very competitive with AppleCare: "We use incident-based pricing. We have enough experience with the various hardware that we know how often a certain piece of equipment will break down." ComputerLand has more than 400 full-service centers in the United States.

Another option is Hewlett-Packard Co.'s Worldwide Customer Support, which has a large field organization of about 400 support offices and 27 response centers located in 93 countries.

"Apple is a key part of our multivendor support program," said Taia Ergueta, product marketing manager of open systems support.

Worldwide Customer Support mainly consists of on-site, scheduled service, where a technician arrives on certain days to fix any problem hardware, plus next-day or same-day service response. According to Ergueta, service rates are designed to compete with dealer service plans, including AppleCare, with uniform pricing.

Individuals and companies might like the simplicity of Safeware Inc.'s Fix:It plan, which combines Safeware's computer insurance and a maintenance contract into a single plan. For a \$50 deductible, Safeware charges a flat 9 percent of list price, 8 percent if surge protection is used, and even less for computers hooked to an uninterruptible power supply. You can even sign up by fax.

According to Safeware CEO David Johnston, you simply call Safeware and report a problem. You then take the covered computer to a registered repair service, not necessarily an authorized service center, and send the bill to Safeware. Independent insurance agents and adjusters provide nationwide service in handling Safeware claims. — Bob Weibel

repair by non-Apple-authorized service, damage by lightning, static electricity, power fluctuation and normal wear are not covered by AppleCare. According to Apple, there are no specific exclusions for any particular Apple product. Who administers the rules? "For the most part the technician or service manager decides what is or is not covered," said Ed Trice, the Apple-authorized service manager for Circumflex Software of Haverstown, Pa.

According to Trice, coffee dumped on your keyboard isn't covered, but a Mac that fries itself on start-up is, or at least every Apple component in it. That snazzy La Cie hard drive, Radius display adapter or those non-Apple memory SIMMs aren't covered: AppleCare is not multivendor.

With Apple SIMMs going for about \$120 per megabyte, Trice said, third-party SIMMs are the norm. "If defective, non-Apple SIMMs are the problem, Trice said, "the customer usually has the following option: Pay an 'inspection fee' (about \$30) to have the unit returned with no repair (no Apple parts) or pay the Apple price for replacement SIMMs and have this fee waived and free installation."

Trice also said that if you tell a technician you installed an adapter board (and therefore came in contact with the Mac's electrostatic-sensitive logic board), your contract could be void or your logic board would not be covered if it is faulty.

AppleCare costs more for portables. According to Robin Brooks, service and warranty manager at The Computer Store of Tigard, Ore., a one-year contract for a \$7,359 (list price) Quadra 950 with 230-Mbyte drive is \$684, or about 9 percent of its list price.

For a \$3,839 PowerBook 170, a year of AppleCare runs \$528, about 14 percent of list. "Portables come in occasionally with damage

to the disk drive heads. If the case isn't damaged, then usually I'll cover it," Trice said. "If it's banged up, I'll flag it with the careless clause again." Also, according to Trice, PowerBooks are extremely static-sensitive, but static damage is hard to determine, and the customer usually gets the benefit of the doubt.

Another AppleCare quirk lies in the PowerBook screen. According to Apple, a PowerBook screen with voided pixels (pixels that always stay white) is not considered defective as long as there are no more than five and all are at least 1 inch apart.

Better safe than sorry.

Opinions vary on whether a service contract is worth the cost. Russ McCann, co-founder of Ares Software Corp. of Foster City, Calif., said, "I've always hated spending money betting against my own disaster." But like many users, he does. "We went with AppleCare because it was easy," McCann said. "It didn't take a lot of thought. The price of a motherboard swap is enough to justify the price."

Cobb, though, said he believes the reverse. "I don't believe in service contracts, and I especially don't believe in computer service contracts," he said. AppleCare contracts on his 15 Macs would run about \$4,500 a year, and Cobb said he'd be better off putting that sum in a kitty. "Then I could get myself a new Mac at year-end," he said.

Still, in an age of instant karma and \$2,000 logic-board replacements, the question remains, "Do you feel lucky?" □

Statistics

From Page 59

The Fair Oaks Groups of San Francisco, said that easy-to-use statistical-analysis programs such as Systat from Systat Inc. allow him to be in the business he is in.

Chriosten, a psychologist specializing in market research, uses mail-survey responses to categorize people into types and then tries to relate these types to purchasing decisions.

In the past, Chriosten has worked for a number of marketing and advertising companies such as SRI International of Menlo Park, Calif. "In those large companies I always had to use SAS or other mainframe products," he said. "It was very painful to work with, and we needed a staff of programmers."

Chriosten said that in the company he now owns, he can't afford to hire programmers, nor does he have time to program mainframe or workstation products himself. Systat, he said, gives him enough statistical functionality so that "I can compete with my former employers even though they are all large companies using mainframe software."

But even with the most intuitive software, you'll still need some statistical skills to generate meaningful reports. Still, statistical-analysis software allows those trained in statistics to concentrate more on their craft and less on programming. □

"I can compete with my former employers even though they are all large companies using mainframe software."

— François Chriosten

Product Info

STATISTICS

ABACUS CONCEPTS INC.

StatView: \$595
1984 Bonita Ave., Berkeley, Calif. 94704
Phone (510) 540-1949;
fax (510) 540-0260

DATA DESCRIPTION INC.

Data Desk: \$595
P.O. Box 4555, Ithaca, N.Y. 14852
Phone (607) 257-1000;
fax (607) 257-4146

FAMOUS ENGINEER BRAND SOFTWARE

digiMatic: \$249
4855 Finlay St., Richmond, Va. 23231
Phone (804) 222-2215;
fax (804) 226-1934

SAS INSTITUTE INC.

JMP: \$695
SAS System: \$895 to \$18,975
SAS Campus Drive, Cary, N.C. 27513

Phone (919) 677-8000;
fax (919) 677-8166

SYSTAT INC.

Systat: \$895
1800 Sherman Ave., Evanston, Ill. 60201
Phone (708) 864-5670;
fax (708) 492-3576

TREE STAR INC.

FlexiTrace: \$179
1802 Hillside Road, Santa Barbara, Calif. 93101
Phone (805) 682-4096; fax (805) 962-0643

INSURANCE

ALLSTATE INSURANCE CO.

2775 Sanders Road, Northbrook, Ill. 60062
Phone (708) 402-5000;
fax (708) 402-1605

APPLE

20525 Mariani Ave., Cupertino, Calif. 95014
Phone (408) 996-1010;
fax (408) 996-0275

COMPUTERLAND CORP.

150 Solano Way, Concord, Calif. 94520
Phone (510) 687-4400; fax (510) 687-1094

GE COMPUTER SERVICE

6875 Jimmy Carter Blvd., Suite 3200, Norcross, Ga. 30071
Phone (404) 246-6200 or
(800) 937-9550

HEWLETT-PACKARD CO.

Worldwide Customer Support, 19310 Pruneridge Ave., Cupertino, Calif. 94014
Phone (415) 857-1501 or (800) 752-0900

SAFECO INSURANCE CO. OF AMERICA

4101 S.W. Kruse Way, Lake Oswego, Ore. 97035
Phone (503) 635-9111 or (800) 452-4970; fax (503) 697-0459

SAFEWARE INC.

2929 N. High St., P.O. Box 02211, Columbus, Ohio 43202
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Wrestling with RSI and formatting files

Caroline Rose offers antidotes and anecdotes for people suffering from repetitive strain problems, and Ian Feldman offers an electronic structure that works with Rose's text.

PRODUCTS

Handling RSI problems. The RSI Network, a newsletter created by Caroline Rose, is an excellent resource for anyone affected by carpal tunnel syndrome, tendinitis or other repetitive strain injuries.

Rose suffers from the problem herself, and she has collected a lot of helpful information in the nine issues published so far. Topics include alternative input devices, software for monitoring computer usage, informative documents, RSI-related organizations, research results and legal issues.

Questions and stories from readers help give the newsletter a friendly tone and a depth of material, and contributions from anyone interested in the topic are important to the newsletter's continued success.

Ironically, the RSI problem hampers Rose's ability to produce and distribute the newsletter, and she is looking for volunteers to help her.

Issues 1 through 9 are available on ZiffNet as file RSI1-9.SEA in the Reference file library at location ZMC:DOWNTECH.

Caroline Rose is at 970 Paradise Way, Palo Alto, Calif. 94306. E-mail crose@applelink.apple.com from the Internet or CROSE on AppleLink.

Broad horizons. It is easy to format and index information on paper so that it is readable by everyone who understands the language, but creating a formatted file that people can browse on any computer is a big problem.

Macintosh files, for example, often have a unique "resource fork" that is unintelligible to other sys-

tems, and parts of the Mac character set — such as curly quotes, em dashes and copyright symbols — are gibberish on other machines.

Then there is the issue of file formats. Many are accessible only to those who have invested in a commercial application, while others are complex or greedy for space.

A few creative people accustomed to exchanging information among computers through the Internet have taken some small steps toward solving these problems.

Ian Feldman designed "structure-enhanced text," or "setext" for short. It consists of plain ASCII characters formatted much like an experienced Internet user might format a text message to send to an electronic news group.

Setext is very readable, with body text headed by titles that are underscored with hyphens or equal signs on the line below. Asterisks, underscores and tildes denote typographic styles, such as italic and bold. Simple spacing can be used to create columns or a table.

Enough structure is defined to provide for tables of contents, indexing and cross references.

Searching and browsing.

Easy View 2.2, a freeware application from M. Akif Eyler at Bilkent University in Ankara, Turkey, provides a convenient interface for organizing and browsing setext files. The program also handles other text formats, such as news digests and CompuServe Navigator archives.

You create an Easy View index file in the same folder with the text files that it indexes. Documents can be added to Easy View's index either manually or automatically after you specify their format. The program never modifies the original files but simply keeps track of their sections in its own file.

A multipane window displays the titles of all files and sections in two lists at the top for an electronic table of contents. When you click on a section to select it, Easy View displays its text in a larger, scrollable pane at the bottom of the window. You can copy text from this region.

A bookmark feature and a Go menu facilitate navigating through the documents. The space bar scrolls through pages of text, and there are other keyboard shortcuts, too.

A search function is similar to those of other Mac applications but adds the ability to collect into a file all lines or all sections where the search text is found.

There are a few tricks to using Easy View, and a quick review of its documentation is worthwhile. The most important things to remember are that searches start at the current location and to keep the index in the same folder with its documents. In System 7, you can

Ask David Ramsey

Battery of questions on PBs

Q. Why can't my PowerBook 100 charge its battery fully? There's always at least one clear space in the battery-charge indicator even if the battery is freshly charged.



A. This isn't a battery or power-supply problem. The Battery desk accessory included with the first-generation PowerBooks is calibrated for the batteries used in the 140, 145 and 170 models. These NiCads have a fully charged voltage of about 7.2 volts. However, the PowerBook 100 uses a lead-acid battery that has a potential of about 6.3 volts when fully charged. In other words, what you're seeing is normal; the real question is why the Battery DA doesn't take the PowerBook 100's lead-acid battery into account.

Q. I have a SyQuest Technology Inc. SyDOS drive I used on an IBM PC compatible, and I am trying to get it working with a Mac. It's a SCSI drive, but I can't get any Mac hard disk formatting software to see it. What should I do?

A. The SyDOS drives are a special, lower-priced version of SyQuest's standard cartridge drives. The main difference is that they're PC-only; they cannot be made to work on a Mac. Sorry.

Q. I've lost some of my icons, and rebuilding the desktop doesn't help. Why?

A. Under System 6, rebuilding the desktop was a sure cure for missing icons. Under System 7, though, the rebuild — activated by holding down the Command and Option keys while booting up — apparently doesn't always rebuild the desktop files from scratch. The solution is to use a utility, such as the ever-popular DiskTop from CE Software Inc., to delete the Desktop DB and Desktop DF files on the disk in question, then reboot with the magic keys held down.

Q. Why do I sometimes see Installer Temp files after upgrading system software?

A. These files are left behind by Apple's Installer program. Normally they are erased the next time you boot by a special extension the Installer leaves behind (which erases itself when it's done). If you use an extension manager that's set to not run new extensions, or if you boot with the Shift key down, this clean-up extension can't do its thing and you'll see the leftover files.

Please send questions to David Ramsey on CompuServe: 76702,335 or to Ask David Ramsey, c/o MacWEEK, 301 Howard St., 15th Floor, San Francisco, Calif. 94105.

put an alias to the index in a convenient spot on the desktop.

Down the road. For distributing information from the Mac, setext offers distinct advantages over alternatives. HyperCard stacks are big, proprietary and usable only on a Mac. TeachText is limited in size and simplistic in format, lacking any organizational structure. Other for-

mats are cryptic, costly or fat.

Setext may lack support for graphics, but it is compact, readable, universal, structured and free.

You can download Easy View from ZiffNet as file EASYVW.SEA in the "Applications" library at location ZMC:DOWNTECH. The RSI Network newsletters are formatted in setext and include an Easy View index. □

Comments on MacInTouch are welcome at 7 Parmenter Ave., Maynard, Mass. 01754. Phone (508) 897-2621. Address electronic mail to RICFORD on AppleLink or MCI Mail; to 72511,44 on CompuServe; or on the Internet to 72511.44@compuserve.com. Join us on-line in the MacWEEK Forum at location ZMC:MACWEEK on CompuServe or ZiffNet/Mac.

File Sharing for Macintosh

NFS/Share connects Mac users to NFS file servers with ease. With NFS/Share, you have a Mac resident link that works from the Chooser and displays all of your remote file servers as a list in a pop-up menu. It's as easy as selecting a printer! The server—with all its megabytes of economical disk space—is accessed in exactly the same way as any Macintosh hard drive.

NFS/Share offers the following features and capabilities:

- Accesses remote NFS servers;
- No Host modification or additional hardware required.
- Supports AppleSingle/AppleDouble file formats for foreign file;
- Automatically mounts multiple servers at start-up;
- Allows multiple NFS clients to mount a common directory;
- User access via Chooser; easy to use and operate;
- Unsurpassed access speed and throughput;



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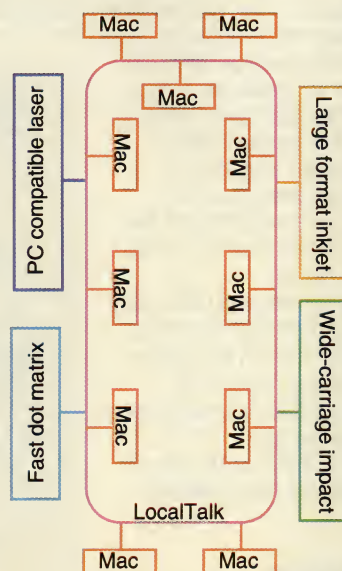
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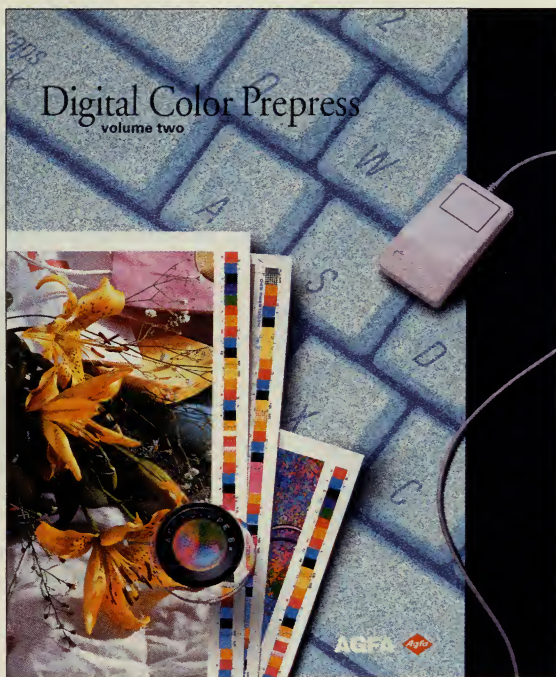
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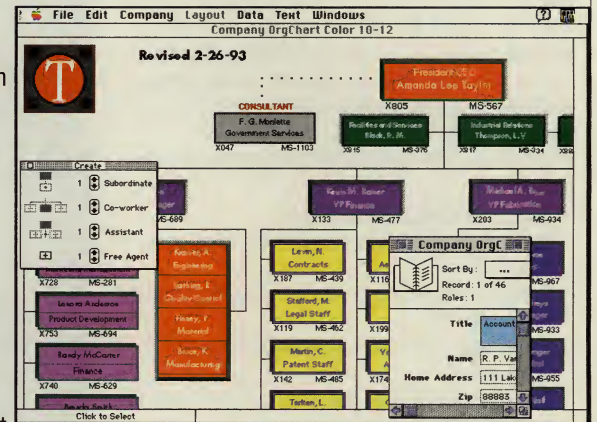
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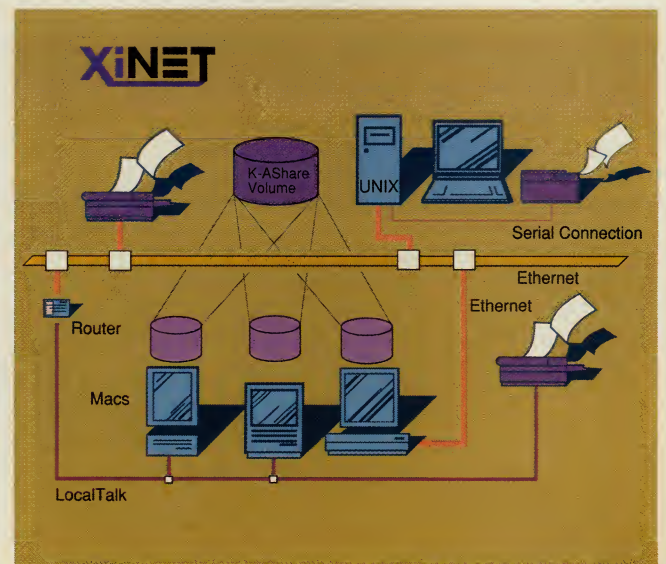
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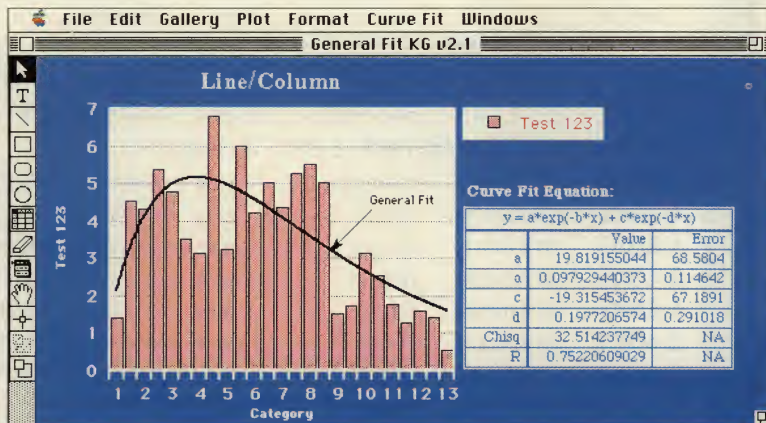
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*Mean Time Between Failure is the average life expectancy of a drive.

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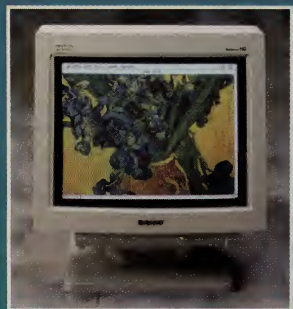
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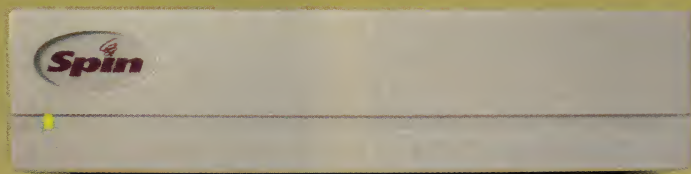
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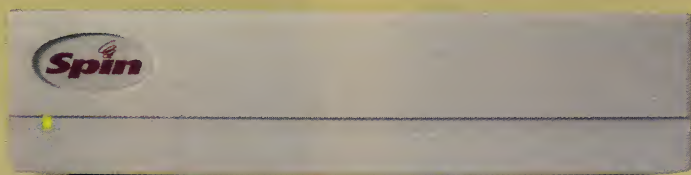
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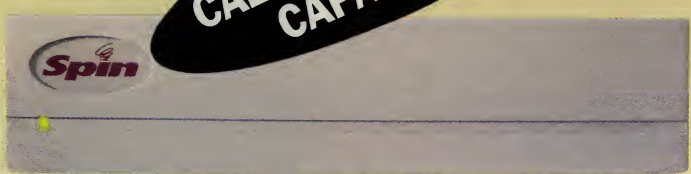
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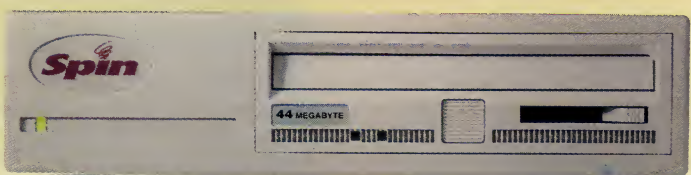


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Desktop and portable units

Archive-based mechanisms

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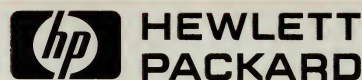


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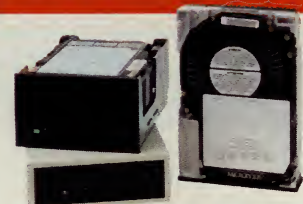
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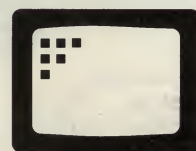
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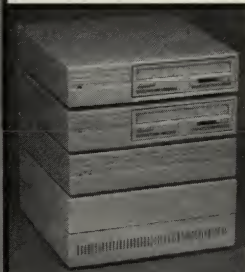
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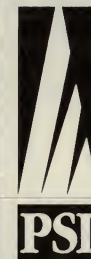
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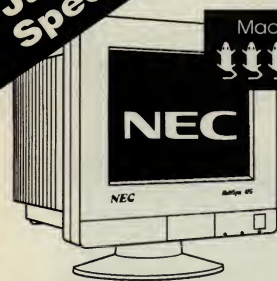
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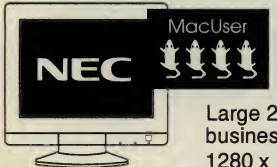


MacUser
MultiSync® 4FG™
\$749

Great for color-intensive business graphics, presentations, windowing applications, and more 15" diagonal, .28mm dp 1024x768 non-interlaced.

MultiSync 3FGx™ (MacUser) **\$639**

NEC MultiSync 5FG **\$1299**



MacUser
MultiSync 6FG
\$2349

Large 21" screen; great for color business applications; .28mm dp; 1280 x 1024 non-interlaced

NEC FG8x card **\$659**

8-bit color NuBus card with QuickDraw™ acceleration

NEC FG24x card **\$1269**

24-bit color NuBus card with QuickDraw acceleration



Silentwriter® Model 95f **\$1369**

- 2MB RAM / 6ppm printing
- 35 Adobe fonts / 14 HP fonts
- Automatically switches interface between Mac & DOS platforms
- Accepts fax upgrade

Silentwriter Model 95fx **\$1999**
Same as Model 95 above and also includes factory installed PostScript® Fax option

Fax Upgrade for Model 95f **\$499**

2MB Memory for Model 95 **\$125**

Silentwriter Model 97fx **\$2359**

Includes factory installed PostScript Fax option; 10 pages per minute; 2MB RAM; 35 Adobe fonts; 14 HP fonts. 3-year On-site warranty

CD-ROM Drives

CDR-25 Express™ Bundle **\$429**

CDR-25 with 1 pair amplified stereo speakers, stereo headphones, and 10 new CD titles.

CDR-74 w/ CD Gallery **\$899**

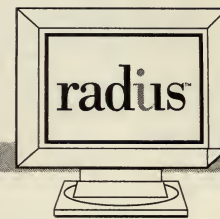
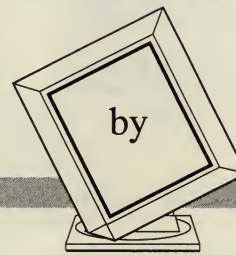
CDR-74 with CD Gallery includes 1 pair amplified stereo speakers, headphones, and 6 CD titles.

radius™

Radius™ PrecisionColor™ Pivot® Display

15-inch, dual-orientation, anti-glare, color full page display compatible with all Color Pivot interfaces (256 colors) and most Precision Color interfaces. Works with Quadra's built-in video. Also compatible with PowerView™ for PowerBooks and Classic II.

\$949



Radius Color Display/ 21™ **\$1999**

21-inch color display for Macintosh (NuBus™) computers. Displays two facing pages in a resolution of 1152x870 at 75 Hz and 78 dpi. Also supports 1072x810 for WYSIWYG (72 dpi) display.

Radius Monochrome

Two Page Display/19. **\$849**

19-inch, landscape, Two Page display display for Macintosh and PC computers. Macintosh resolution is 1152x 882 at 71Hz at 82 dpi.

Radius PrecisionColor™

Display/20. **\$2349**

20-inch multi-frequency Trinitron® color display for Macintosh and PC computers. Connects virtually to any video interface card. "On-the-fly" resolution switching from 640x480 to 1152x882 on the Mac, and 320x200 to 1280x1024 on the PC.

Radius Graphics Cards & Interfaces

Color Pivot Interfaces (NuBus, IIsi, LC, SE/30) **\$499**

PowerView™ (PowerBook and Classic II) **\$494**

Two Page Display interface (NuBus, IIsi, SE/30) **\$379**

PrecisionColor 8X Card **\$749**

PrecisionColor 8XJ Card **\$489**

PrecisionColor 24X Card **\$1649**

PrecisionColor 24XP Card **\$499**

Radius Rocket 25i™ **\$1249**

Radius Rocket 33™ **\$1999**

VideoVision™ **\$1929**

Radius ImpressIt™ software **\$149**

Radius PrecisionColor software **\$247**

RocketShare™ **\$429**

Complete line of Radius products available. Call for more information.

Scanners



UMAX®

UMAX UC-630. **\$1125**
600 dpi color scanner with PhotoShop®

Transparency/Slide Scanner

Option for UC-630. **\$749**

NEW UMAX UC-840. **\$1349**
800 dpi color scanner with PhotoShop

UMAX UC-1200S. **\$2999**
1200 dpi color scanner with PhotoShop

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11" x 17" and 8.5" x 11"

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color output, Built-in Apple-

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Special Offer



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Modems



SupraFAXModem™

144PB. **\$299**

For PowerBook models 100 through 180. 14,400 bps data and fax transmission.

SupraFAXModem144PB Plus. **\$399**

Enhanced SupraFAXModem 144PB; includes voice messaging capabilities, software, and FlashROM

Supra FAXModemV.32bis. **\$349**

14,400 bps data and send/receive fax transmission. Includes FAXstf™, Microphone™ 1.6 software and cable.

Supra FAXModem+. **\$179**



Global Village Modems

PowerPort/Gold™. **\$439**

14,000 bps data ; 9600 bps fax send/receive

PowerPort/Silver™. **\$379**

9600 bps data ; 9600 bps fax send/receive

PowerPort/Bronze™ **\$179**

2400 bps data; 9600 bps fax send; 4800 bps fax receive

..... Call for prices on memory.



Cellular PowerBook Kit

- INT1202 Intelligent cellular interface
- NEC P200/300 Portable Cellular phone
- Stylish Leather Attache PowerBook not included

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Connect your Macintosh PowerBook to the Cellular PowerBook Kit and fully utilize your PowerBook wherever you go! Send & receive data transmissions, or link to computers & fax machines. Gain access to local & international telephone services.

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PowerBook Accessories

Memory Modules

4MB for PowerBook 160/180 **\$249**

4MB for PowerBook Duo 210/230 **\$239**

6MB for PowerBook 140/170 **\$229**

8MB for PowerBook Duo 210/230 **\$419**

10MB for PowerBook 160/180 **\$509**

Portable Printer

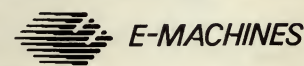
GCC Technologies



WriteMove® II. **\$549**

It's the best portable printer for your PowerBook. Only 2.5 pounds, battery-powered, 360x360 dpi laser-quality output, includes ATM™, 21 fonts, background printing, and On-Screen Page Preview.

Docking Stations



E-Machines

PowerLink™ Presentor. **\$489**

It's the only portable dock that turns your PowerBook Duo into a presentation machine. Connects PowerBook Duo to large screen displays, televisions, LCDs and projectors.

E-Machines PowerLink DeskNet™ **\$689**

The only desktop dock with full-speed Ethernet. Choose 10BaseT or Thin Ethernet for compatibility with existing and new networks.

Carrying Cases

Teneba PowerBook Case **\$89**

Kensington PowerBook Case **\$49**

Kensington Deluxe PowerBook Case **\$79**

PowerBook and Printer Case **\$69**

PowerBook Case with DayMaker Software **\$95**

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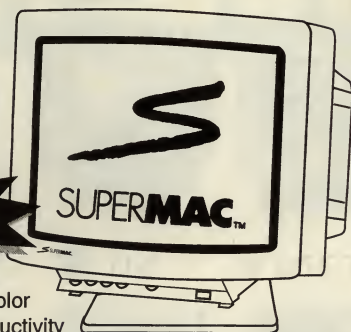
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SYEX EXPRESS



SuperMatch™
17" Multimode
Color Display

\$975



Low-cost, large screen color display for business productivity applications. Supports 1024x768 full-page-plus, 832x624 WYSIWYG, and 640x480 magnified view resolutions. Automatically syncs to all popular Macintosh and PC timings. It's plug-and-play compatible with Quadra motherboard graphics.

SuperMatch 17-T Trinitron® Color Display.\$1069

Multiple modes, 1024x768 full-page, 832x624 WYSIWYG, & 640x480 magnified views. "Plug-and-play" compatible with Quadra built-in video.



SuperMatch 20" Color Display.\$1489
Unsurpassed color, full-page WYSIWYG resolution, exceptional value, and impeccable color and imagery.

SuperMatch 20-T MultiMode Color Display.\$2449

20" Trinitron® display that's great for CAD/CAM, graphics and more. Mac and PC compatible.

SuperMatch 20" Color Dual Mode Display.\$2449

Flexible viewing, realistic colors for design and publishing

SuperMatch 21" Two-Page Color Display.\$2449

SuperMac's premium color display is great for the most demanding needs of professional color publishing. Apple-compatible resolution of 1152x870 at 77 dpi; use directly with Quadra on-board video.

SuperMac Graphics Cards

Spectrum/8™	\$429
Spectrum/8-24™ PDQ	\$849
Spectrum/24™ Series III	\$849
Spectrum/24™ PDQ+	\$1549
SuperMac ThunderStorm™	\$849
SuperMac™ Thunder/8™	call
SuperMac Thunder/24™	call
New SuperMac Thunder II™	call
SuperMac VideoSpigot™ Pro	\$1099

SuperMac DigitalFilm™ call

On-line, digital-video editing system for professional video production in a single slot. Provides real-time capture of full-motion video and audio to disk. Bundle includes DigitalFilm Player, DigitalFilm Recorder, and DigitalFilm Encoder and Breakout Box. Also includes free copy of Adobe Premiere™ 2.0

SONY

3.5" 128MB Magneto Optical Disk Drive RMO-S350 with Mac kit\$1489

Rewritable 3.5" disk with capacity of 128MB

5.25" 650MB Magneto Optical Disk Drive RMO-S550 with Mac kit\$2249

128MB Optical Cartridge.\$59

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with 32K sRAM **only \$49**

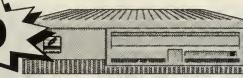
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Sony Photo CD-ROM drive compatible with Macintosh family. Includes caddy. 325ms access time; multi-session capable

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external hard drive

MicroNet 120MB.\$399

internal HD for Ilci, Quadra 700

MicroNet 414MB.\$1299

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MicroNet 1001MB.\$1629
internal HD for Quadra 900/950

MicroNet Raven-040™ 2022MB Disk Array. call
internal/external full-height for Quadra 900/950.

MicroNet Removable Cartridge Systems MR-45 SyQuest® Removable Hard Drive. . \$459
42MB capacity, 20ms access time, .5MB per second data transfer, includes one cartridge

NEW MR-90C SyQuest Removable HD.\$699
Can write as well as read 44MB cartridges; 84MB capacity, 19ms access time, 1.25MB per second data transfer

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FUJITSU

425MB internal, 9ms.....\$929

520MB internal, 9ms...\$1039

Removable Cartridges



SyQuest® 45MB.	\$65
88MB.	\$105



Dataproducts®

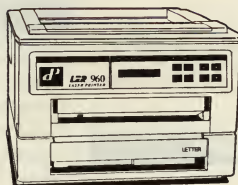
LZR 1560™ Ledger/A3 Laser Printer

15 pages per minute; 300 or true 400 dpi resolution, 4MB RAM standard, expandable to 16MB; Adobe PostScript Level 2; supports 11"x17" (ledger) size paper; models with one, two or three 250 count input trays available

LZR 1560 with Two Trays\$3069

1560 Legal Cassette.\$69

1560 Ledger Cassette.\$69



LZR 960™ Printer...\$1599

The LZR 960 is a leading edge product which delivers unsurpassed performance for Macintosh users. 300 dpi; 9 ppm printing; 2MB RAM; Adobe PostScript Level 2; 35 resident fonts

960 Legal Cassette.\$39

960 Toner Kit.\$49

960 2MB Upgrade.\$269

JOLT™ PS Color Printer.\$5399

Integrate vibrant color into documents on a wide variety of office papers with the new solid ink technology of the Dataproducts JOLT PS color printer. 300 dpi output; 1 ppm for color output—the fastest device of its kind. PostScript Level 2, 6MB RAM

JOLT Transparency Enhancer.\$293

January Specials

ASANTÉ™

10BaseT Hubs: High-performance connectivity and maximum flexibility.

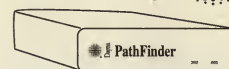
Asanté™ Technologies, offers two inexpensive 10BaseT Ethernet® concentrators to connect your Macs, PCs and other workstations to a high-speed 10BaseT network.



10T Hub/8	\$239
10T Hub/12	\$479
MacCon+LC	\$145
MacCon LC/10T	\$145
MacCon+IIIE64	\$145
MacCon+IIET64	\$145
MacCon3 NuBus	\$195
MacCon3 for Ilci	\$195
MacCon+ 30IE64	\$145
MacCon+ 30IET64	\$145
Thin FriendlyNet® Media Adapter	\$79
10BASET FriendlyNet Media Adapter	\$79
EN/SCT 10BaseT SCSI Adapter	\$239
EN/SC PB 10BaseT for PowerBook	\$269

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Prices only good through 1/30/93

Dayna



Dayna PathFinder™ makes LocalTalk to Ethernet routing easy and affordable. It has connectors for LocalTalk and all Ethernet cable systems, from thick and thin Ethernet to 10BASE-T.

Dayna PathFinder	\$769
SCSI/Link™	\$279
SCSI/LinkT PB 10T for PowerBook	\$299
DaynaPORT™ E/II-T	\$149
DaynaPORT Mini Hub/8	\$289
EtherPrint-T	\$329
EtherPrint™ Plus	\$419
DaynaPORT E/II	\$149
DaynaPORT E/LC	\$149
DaynaPORT E/SI	\$149

Complete line of Dayna products available

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EtherMac II Thinnert	\$175
PhoneNET® StarController® EN™	\$1199
PhoneNET StarController 12 Port	\$799
PhoneNET StarController 24 Port	\$1299

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— Stephen E. Snider

Monitors: all sizes, types, and prices.

	Price	Tube type	640 x 480	640 x 870	832 x 624	1024 x 768	1152 x 870	Auto-syncing	Anti-glare	Mac on-board compatible
A. Radius 21" Color	\$3,069	Hitachi								
RasterOps 21" Color	2,799	Hitachi								
B. SuperMac (SuperMatch) 21"	2,529	Hitachi								
SuperMac 21" Mono/Grayscale	989	—								
C. RasterOps 20" Trinitron Multi-Mode	\$2,329	Trinitron								
Radius Precision Color 20"	2,389	Trinitron								
RasterOps 20" Hitachi Color	1,469	Hitachi								
D. RealTech 20" Trinitron Multi-Mode	1,895	Trinitron								
E. SuperMac 20" (SuperMatch)	1,499	Hitachi								
SuperMac 20" (SuperMatch Dual-Mode)	2,499	Trinitron								
F. NEC 17" 5FG Color	\$1,589	Toshiba								
RasterOps 16" (RasterOps Sweet 16)	1,249	Panasonic								
G. RealTech 17" (RealTech Multi-Mode)	995	Hitachi								
H. Sony 17"	1,189	Trinitron								
I. Seiko Instruments 17" (1760)	1,149	Trinitron								
J. Radius Precision Color Pivot (15")	\$959	Non-Trinitron								
K. RealTech 15" Grayscale	449	—								
L. Seiko Instruments 14" Color 1445	479	Trinitron								
M. Sony 13" Color	689	Trinitron								

Monitors



PowerBooks



These PowerBook 160s and PowerBook 180s each include: 8 Mb of RAM, expandable to 14 Mb; display with 16 grayscale levels; 1.4 Mb floppy disk drive.

PowerBook® 160

25 MHz 68030. Supertwist display. 40, 80, or 120 Mb hard drive.

PowerBook 160 with 8/40 \$2639
PowerBook 160 with 8/80 2999
PowerBook 160 with 8/120 3359

PowerBook® 180

33 MHz 68030 FPU. Active matrix display. 80 Mb hard drive.

PowerBook 180 with 8/80 \$4319
PowerBook 180 with 8/120 4679

POWERBOOK MEMORY UPGRADES & ACCESSORIES

PowerBook 160 & 180 Memory Upgrades (6/8/10) \$289/409/499
PowerBook Duo 210 & 230 Memory Upgrades (4/8/12) 279/559/809
Auto Power Adapter 89

Charger/Reconditioner 169
Auxiliary Power Pack 169
Radius PowerView 509
PowerBook Battery 79

The PowerBook Duo 210 8/80 and PowerBook Duo 230 8/80 transform into desktop computers by using the optional Duo Dock. Each PowerBook Duo 210 or 230 includes:

- 640 x 400 Supertwist liquid crystal display with 16 grayscale levels
- 8 Mb of RAM, expandable to 24 Mb
- EverWatch Battery Saver technology
- Optional internal modem

PowerBook® Duo 210 8/80

\$2,529
Lease: \$69/month

25 MHz 68030 microprocessor. 80 Mb hard drive.
All PowerBooks listed here are equipped with a 19mm trackball.

PowerBook® Duo 230 8/80

\$2,889
Lease: \$79/month

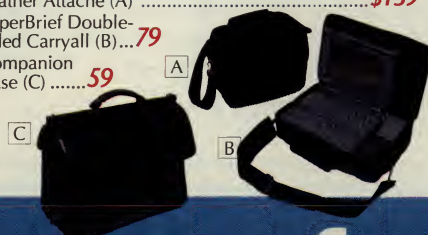
33 MHz 68030 microprocessor. FPU, 80 Mb hard drive.
PowerBook Duo 230 with 8/120 \$3249

POWERBOOK MODEMS

Global Village PowerPort \$459/399/209
Gold/Silver/Bronze 189
MassMicro FM 24/96 PB 119
Zoom Pocket Modem 119

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Leather Attache (A) \$139
SuperBrief Double-sided Carryall (B) 79
Companion Case (C) 59



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TransWarp LC (25 MHz) 459
TransWarp LC (50 MHz) 1059
TransWarp LC (50 MHz w/50-FPU) 1319
TransWarp 040 (25 MHz) 1749
QuickSilver 189
1.44 SuperPlus Drive 279
QuadraLink 199

DAYSTAR DIGITAL

PowerCache Accelerators
33 MHz Accelerator \$399
40 MHz Accelerator 569
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ComboCache Card for IIsi 219
PowerMath Card for LC 119
Equalizer Card for LC 179
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Image Magic FX/PDS 699
Image Magic Quadra/PDS 699

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DaynaPORT E/II-T NuBus Card

Connects Mac II computers to thick, thin, fiber optic or 10Base-T Ethernet cable systems. Includes an RJ-45 jack for 10Base-T wiring. DaynaPORT E/II-T NuBus Card**\$149**

DaynaPort E/Z. Ideal for Macs that don't have a slot for a network interface card. DaynaPort E/Z**\$269**

Dayna EtherPrint

Divides your network into multiple zones. Dayna EtherPrint.....**\$335**
Dayna EtherPrint Plus.....**\$439**

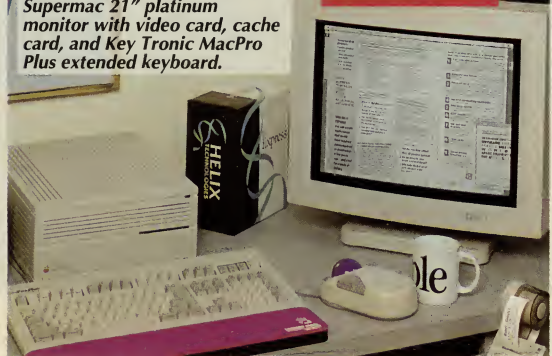


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**Macintosh IIfx
Business Solution**
Macintosh IIfx with 5 Mb of RAM, 212 Mb hard drive, Supramac 21" platinum monitor with video card, cache card, and Key Tronic MacPro Plus extended keyboard.

\$4095
Lease: \$112/month



\$2,729
Lease: \$77/mo.
Mac IIfx Solution with Seiko Instruments 14" Color Monitor



\$7,849
Lease: \$215/month
Quadra 700/Trinitron Intermediate Graphics Solution Quadra 700, 8 Mb of RAM, 520 Mb hard drive, RealTech 20" Trinitron monitor w/PaintBoard Li and Key Tronic MacPro Plus extended keyboard.

Macintosh IIfx with 5 Mb of RAM, 120 Mb hard drive, Seiko Instruments 14" Trinitron monitor, and Key Tronic MacPro Plus extended keyboard.

Hours: 8 am-7 pm Central Standard Time

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Flatbed desktop scanners for 24-bit color, 8-bit grayscale, and black/white images. Ideal for mid-range output or position prints for mockups/presentations.

	Price	DPI	Brightness & contrast levels	Scanning area	Flat art	Transparencies	Slides	Software
MICROTEK								
Scanmaker II Includes ScanMatch color calibration software	\$909	600	14	8.5 x 11	■			Includes limited version of Adobe Photoshop
Scanmaker IIXE Includes ScanMatch color calibration software	1,179	600	14	8.5 x 11	■			Includes full version of Adobe Photoshop
Scanmaker 1850 Slide Scanner	1,569	1850	14	2.5 square inches		■		Includes full version of Adobe Photoshop
REALTECH								
Scan 800 Optional Adobe Photoshop	\$1,199 200	800	200	8.5 x 11.75	■			Includes Scan-Match color calibration software
Scan 800 with Transparency Option	1,695	800	200	8.5 x 11.75	■	■		
UMAX								
UC 630	\$1,119	600	51	8.5 x 14	■			Includes full version of Adobe Photoshop
Transparency Option	729	(600)	(51)	6 x 9	■	■		
UC 840	1,289	800	51	8.5 x 14	■			Includes full version of Adobe Photoshop
Transparency Option	729	(800)	(51)	6 x 9	■	■		
UC 1200S	3,019	1200	51	8 x 11.8	■			Includes full version of Adobe Photoshop
Transparency Option	729	(1200)	(51)		■	■		



The photo above is a 300 dpi image of an 8 x 10 transparency. It was scanned on the RealTech Scan 800 with Transparency Option, then adjusted with ScanMatch and color-corrected with Adobe Photoshop.

Scanners & Printers

Laser printers

The right printer can do wonders for your productivity. Do you need speed? Adobe PostScript Level 2? Do you need to print a lot of pages each month?

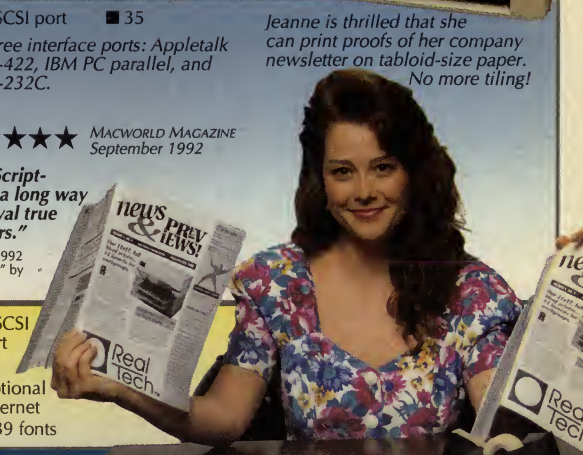
	Dpi	Engine speed	RAM	Interpreter	Microprocessor	Duty cycle	Paper trays	SCSI port	Interfaces	Resident fonts	Misc.
QMS We offer dozens of printers, including the QMS line...too many to show in this ad! If you don't see what you want listed here, please call us.											
NEC Silentwriter Model 95 1/2 1/2 1/2 1/2 \$1,469 Lease: \$40/month											
■ 300 dpi ■ 6 pages/min. ■ 2 Mb RAM (expandable to 5 Mb)				■ Adobe PostScript Level 2 ■ Motorola 68000 processor		■ 6,000 pages per month ■ Built-in envelope feeder & 250-sheet tray; optional 2nd tray available in letter or legal sizes		■ No SCSI port ■ AppleTalk RS-422, parallel, and RS-232C		■ 35 Micro-fine toner and NEC's patented "Sharp Edge" technology create sharp black print quality	NEC
NewGen 400P \$1,879 Lease: \$51/month											
■ 400 dpi ■ 4 pages/min. ■ 4 Mb RAM (expandable to 16 Mb)				■ PostScript compatible ■ Weitek XL-8220 processor		■ 3,500 pages per month ■ Optional 2nd paper drawer		■ Optional SCSI port ■ AppleTalk RS-422, parallel, RS-232C		■ 35	NewGen 400P
RealTech Laser 1/2 1/2 1/2 1/2 \$1,595 Lease: \$44/month											
■ 300 dpi ■ 9 pages/min. ■ 2 Mb RAM (expandable to 10 Mb)				■ Adobe PostScript Level 2 ■ Weitek RISC processor		■ 5,000 pages per month ■ Optional 2nd paper tray & cassette feeder are available for \$250 (for both)		■ SCSI port ■ AppleTalk RS-422, parallel, and RS-232C.		■ 35 ATM font rendering technology builds raw type characters 4 to 5 times faster, enabling the RealTech Laser to print complex documents faster than other printers in its price range.	RealTech Laser
Texas Instruments MicroLaser XL Turbo \$2,795 Lease: \$77/month											
■ 300 dpi ■ 16 pages/min. ■ 2.5 Mb RAM (expandable to 10.5 Mb)				■ Adobe PostScript Level 2 ■ Weitek RISC processor		■ 25,000 pages per month ■ Optional 2nd paper drawer		■ Optional SCSI port ■ AppleTalk RS-422, parallel, and RS-232C		■ 35	TEXAS INSTRUMENTS
Texas Instruments MicroLaser Plus \$1,249 Lease: \$34/month											
■ 300 dpi ■ 9 pages/min. ■ 1.5 Mb RAM (expandable to 4.5 Mb)				■ Adobe PostScript Level 1 ■ Motorola 68000 processor		■ 10,000 pages per month ■ Optional 2nd paper drawer and envelope feeder		■ Optional SCSI port ■ AppleTalk RS-422, parallel, and RS-232C		■ 17 Available with 35 resident fonts (\$1349)	
The only 11x17 printer with Adobe PostScript Level 2 for less than \$3500.											
■ Choice of 300 or 400 dpi ■ 15 ppm (letter size); 8 ppm (tabloid size) ■ 4 Mb RAM (expandable to 16 Mb)				■ Adobe PostScript Level 2 ■ Weitek RISC processor (and ATM font rendering technology)		■ 20,000 pages per month ■ Two paper trays included (one tray for letter size; one tray for tabloid size.)		■ SCSI port ■ Three interface ports: AppleTalk RS-422, IBM PC parallel, and RS-232C.		■ 35	
RealTech Laser 400 \$3,195 Lease: \$88/mo.											
■ 600 dpi ■ 8 ppm (letter size); 4.6 ppm (tabloid size) ■ 12 Mb RAM (expandable to 32)				■ Adobe PostScript compatible ■ Intel 80960CA RISC processor		■ 10,000 pages per month ■ Optional 2nd paper cassette		■ SCSI port ■ Optional Ethernet ■ 39 fonts			
QMS 860 Hammerhead \$4,279 Lease: \$117/mo.											
				Three interface ports: AppleTalk RS-422, IBM PC parallel, and RS-232C.							



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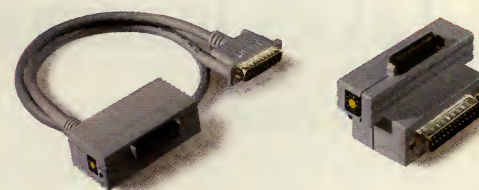
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MacEKG 2.0

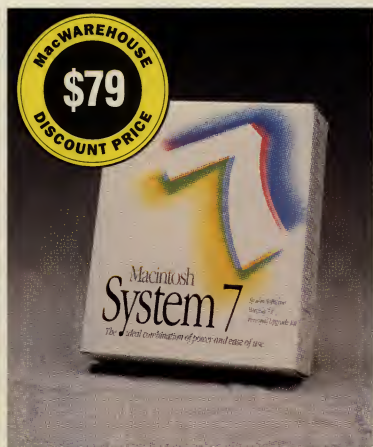
(Micromat) This preventative maintenance utility is for everyone who owns a Mac Plus or above (system 6.0.7 or greater). Once installed, it runs by itself. MacEKG actually learns your machine and how it should behave. If a significant change has occurred, EKG will inform you by voice and indicate problems worth investigating. Is your disk drive slowly dying out on you? In only a few minutes EKG has determined the health of your machine for the day. EKG helps with inventory control by logging NuBus, ADB, and over 250 System configuration parameters. The program also includes ReActivator, component-level tests previously available only to Authorized Apple technicians, and a unique "capsule" to export for remote diagnostic analysis. **UT10285 FaxFACTS 6603**



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(Maxa) Snooper 2.0, the desktop diagnostic, detects hardware problems and sources of intermittent failures. Diagnose from your desk with Snooper, the revolutionary new standard for Mac diagnostic and testing tools. It performs over 200 major component tests, prints the results, and logs errors. And when your Macs performance isn't up to par, Snooper also does benchmark testing and reports on system configurations to allow technicians to find and fix the problems quickly. Includes a NuBus card to check errors even when the screen displays a "Sad Mac."

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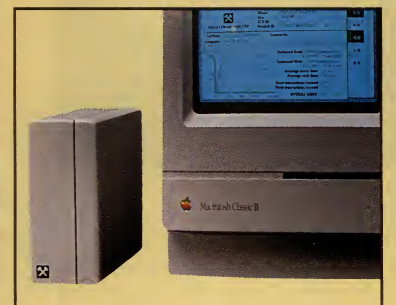
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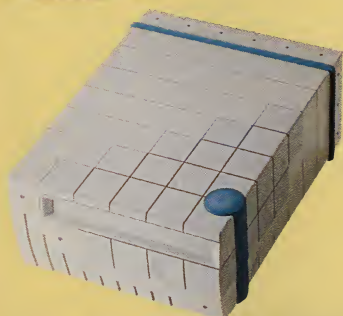
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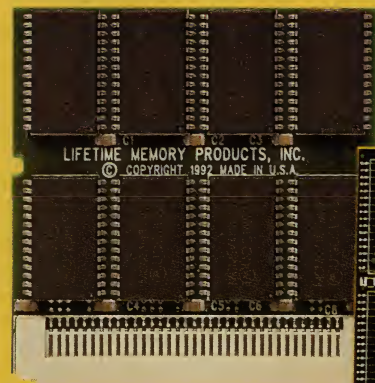
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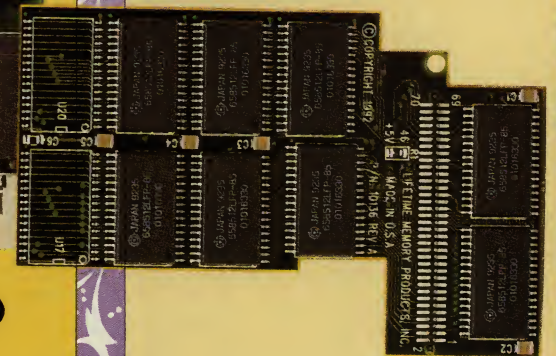


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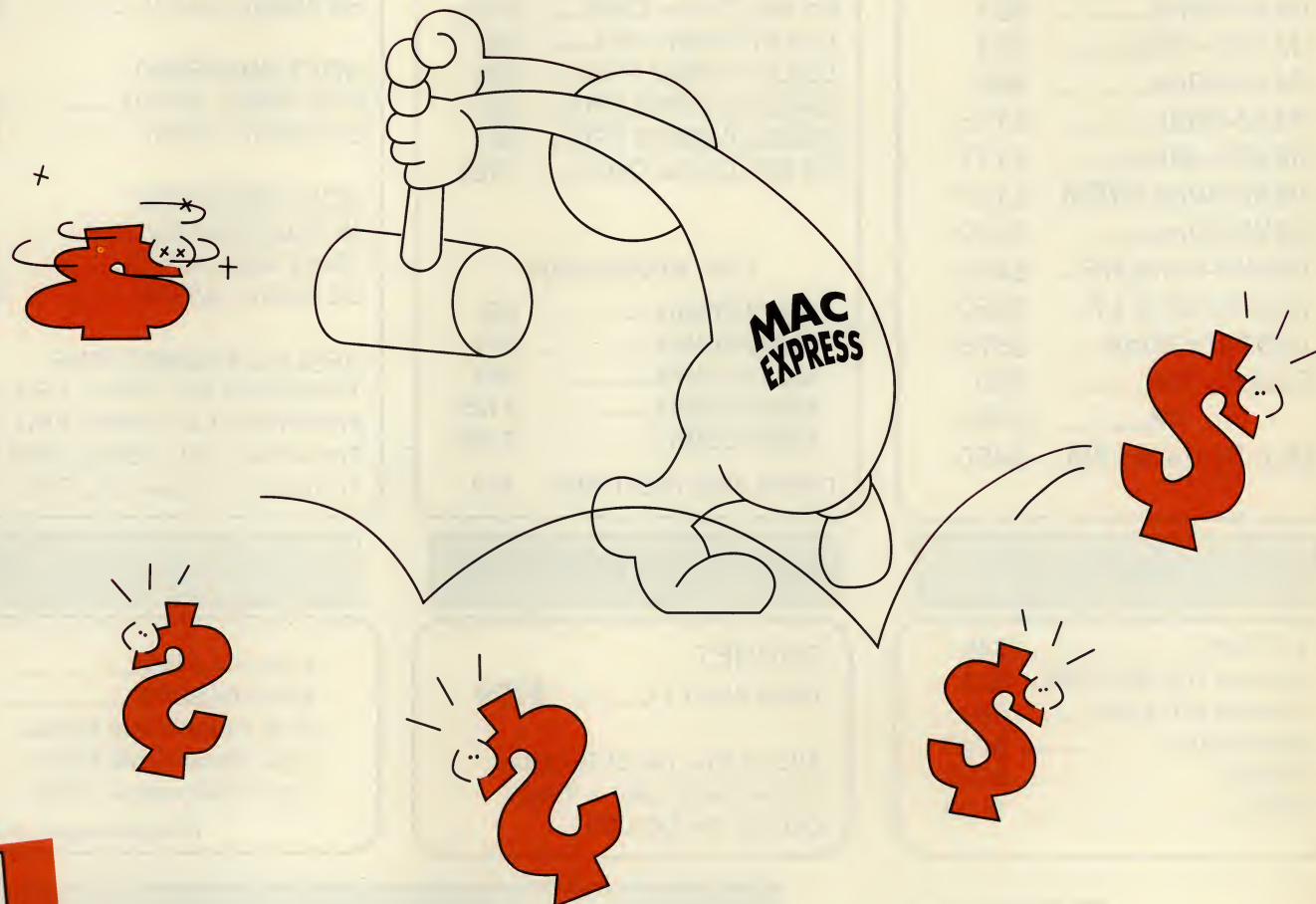
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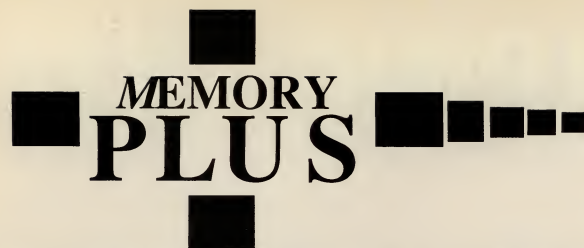
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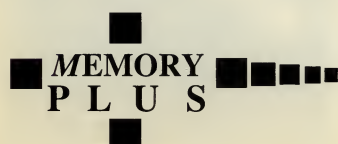
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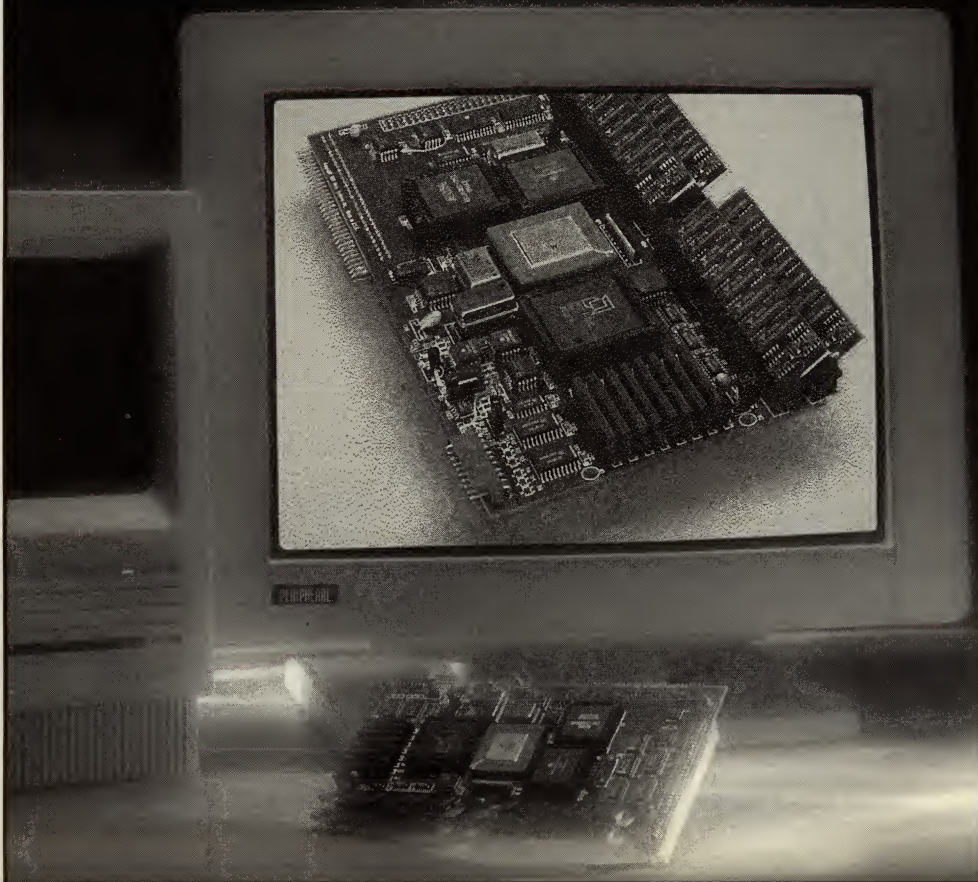
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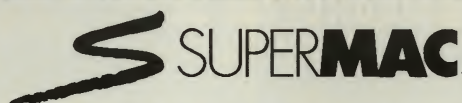
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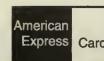
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The Macintosh Herald

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The Incredible
Shrinking Macintosh

Austin, Texas — Recent Macintosh sightings have revealed smaller units with fewer NuBus slots. Observers note that this trend has become a real problem with the rapidly increasing quantities of NuBus option boards available in the marketplace. A spokesman went on to say that power supplies were also becoming smaller, with less ability to provide power to these sophisticated NuBus

Second Wave Solves the
Macintosh Slot Problem

Austin, Texas — A family of NuBus expansion chassis systems has solved the problem of NuBus slot shortages in your Macintosh, sources say. Four-slot and eight-slot expansion chassis for the Macintosh II, Performa, and Quadra models are now available.

Call Second Wave at 512-343-9661 or write to us at 9430 Research Blvd., Bldg. II, #260, Austin, TX 78759-5541 for the rest of the story...



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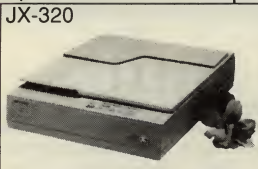
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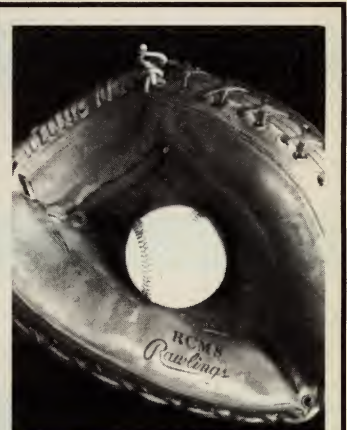
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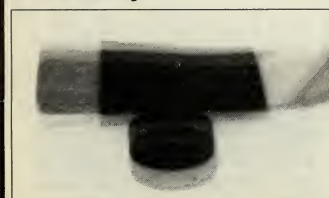
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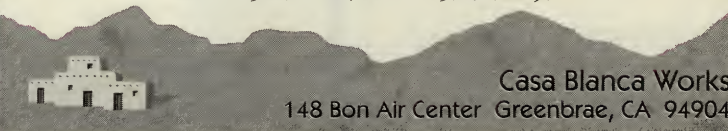
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Asanté 10BaseT Hub/8 239
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Asanté 10BaseT Hub/12 479
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AsantéHub 1012 479
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Tribe LocalSwitch 1,999
Tribe LocalSwitch - 16-Port LocalTalk Hub

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AddressWriter Printer 479
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Label Feeder Adapter 75
AppleTalk Network Adapter 189
AppleTalk 5-User Site License 139

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AppleTalk Network Adapter 189
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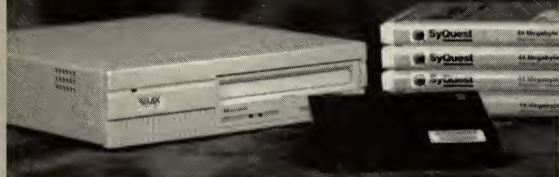
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Sharp JX-320 Color Scanner 1,199
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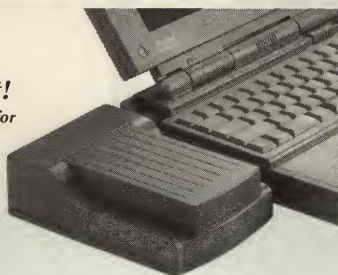


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425 Meg. - 2623SA, 9 ms.	899	959
520 Meg. - 2624SA, 9 ms.	1,039	1,099
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960 Meg. - 2266SA, 11.5 ms.	1,639	1,699
1.7 Gig. - 2652SA, 11.5 ms.	2,639	2,699

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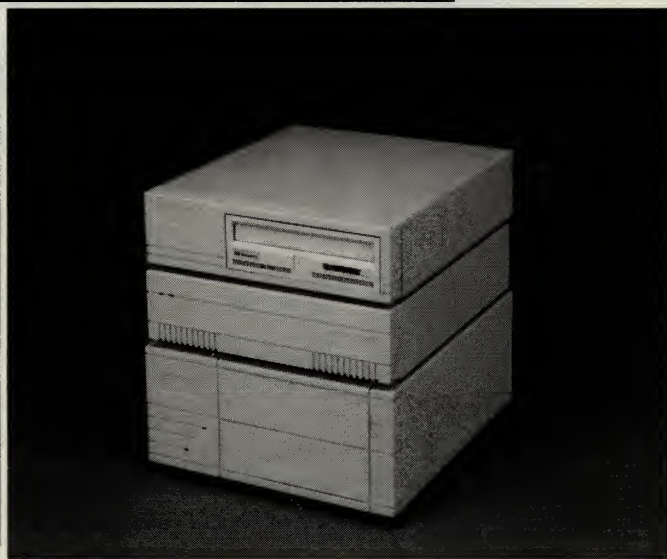


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207MB	7213	15	\$469	\$529
330MB	LXT-340	15	\$659	\$719
535MB	LXT-535	12	\$979	\$1039
645MB	XT-8760S	16.5	\$1229	\$1329
1.2GB	PO-12S	13	\$1449	\$1549
1.7GB	PO-17S	13	\$1749	\$1849

- 3.5" drives have one year warranty
- 5.25" drives have two year warranty



Unformatted Capacity	Model	ms	Int.	Ext.
425MB	M2623FA	9	\$899	\$959
520MB	M2624FA	9	\$999	\$1069
1.2GB	M2266SA	14.5	\$1589	\$1689
2.0GB	M2652SA	14.5	\$2585	\$2685

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Quantum

Unformatted Capacity	Model	ms	Int.	Ext.
42MB	ELS42	19	\$185	\$245
85MB	ELS85	17	\$239	\$299
127MB	ELS127	17	\$309	\$369
170MB	ELS170	17	\$345	\$405
240MB	LPS240	10	\$519	\$579
425MB	PRO425	9	\$899	\$959
525MB	LPS525	10	\$1049	\$1109
80MB	Go•Drive	17	\$325	\$389
120MB	Go•Drive	17	\$455	\$519

- ELS, LPS, PRO drives have two year warranty
- GO-drives have one year warranty



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1.75GB	PD 1750-II	14	\$6,590
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402	425MB	3.5"	12.6ms	14-20Mbit	\$ 1,039 \$ 1,099	82	85MB	1"Hi 9ms	12-16Mbit	\$ 269 \$ 349	
1003	1.2GB	3.5"	10.5ms	24-42Mbit	\$ 1,999 \$ 2,079	127	120MB	1"Hi 16ms	15-30Mbit	\$ 379 \$ 459	
1029	1.2GB	FH	13.5ms	23Mbit	\$ 1,679 \$ 1,799	170	170MB	1"Hi 17ms	8-12Mbit	\$ 399 \$ 479	
1290	1.6GB	FH	13.5ms	23Mbit	\$ 2,079 \$ 2,199	240	240MB	1"Hi 16ms	15-30Mbit	\$ 579 \$ 649	
1650	2.1GB	FH	11.5ms	24-42Mbit	\$ 2,679 \$ 2,799	502	525MB	1"Hi 10ms	18-38Mbit	\$ 1,129 \$ 1,199	
1910	2.4GB	FH	11.5ms	24-42Mbit	\$ 3,079 \$ 2,799	1170	1225MB	3.5" 10ms	18-38Mbit	\$ 1,779 \$ 1,849	
ProLine			FUJITSU			Academy II			TOSHIBA		
500	520MB	3.5"	12ms	19-24Mbit	\$ 1,069 \$ 1,139	830	870MB	3.5" 12.5ms	12-24Mbit	\$ 1,249 \$ 1,329	
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Vision			MAGNETO-OPTICAL			250	Sankyo 1/4" Tape Drive		\$ 649		
128	3.5"	35ms	MOST		\$ 1,289	525	Sankyo 1/4" Tape Drive		\$ 799		
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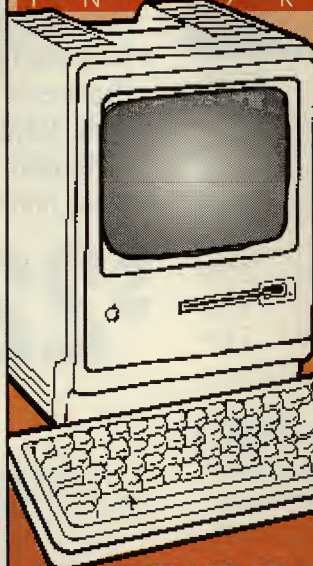
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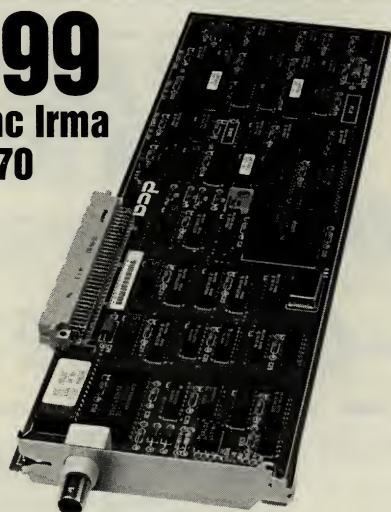
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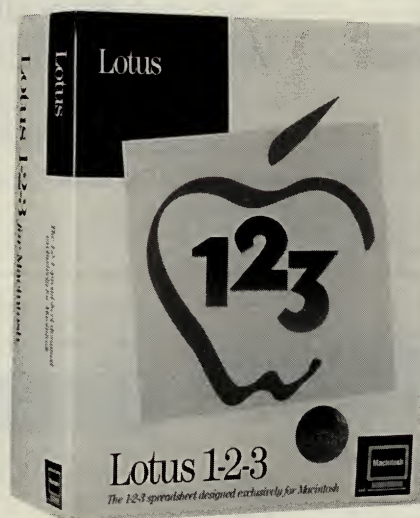
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Indicate the Dept. code for the position which interests you.

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Newton

From Page 1

cific features of the hardware to be shipped this year. During the demonstration, Michael Tchao, product-line manager for Newton products, transmitted a note via an unnamed wireless connection to a fax modem, which then connected over telephone lines to a fax machine; Tchao then transferred a restaurant address via infrared light to another Newton over a span of a few inches. He also attached but did not use a wireless paging add-on from Motorola Inc.

Bastiaens promised that Apple will develop, bundle and license Newton-based client software for future Apple on-line services to be developed with America Online Inc. (see MacWEEK, Dec. 14, 1992).

"Telecommunications will be as important to the Newton as graphics are to the Macintosh," he said.

Other enhancements to Newton's



LEE McDONALD/BLACK STAR

At CES, Sharp's Akira Mitarai (left) handed over an alpha version of the Newton PDA his company is manufacturing for Apple to Gaston Bastiaens, general manager of Apple's PIE.

capabilities were mentioned briefly. Sixteen-bit PCMCIA 2.0 slots will be supported in the first Newton, but the hardware also will support a 32-bit bus to credit-card-size devices. The expanded bus was submitted last year to the Personal Computer Memory Card International Association for inclusion in future versions of the standard, according to Susan Schuman, manager of communications

products for the Newton group.

She also said Dylan, Apple's dynamic LISP-based programming language, would not be supported or used in the first Newton device. The company instead is creating a multi-level development environment that will allow users to modify the appearance of Newton software and provide an object-oriented framework for programmers. □

Apple hits \$2 billion mark for Q1

By Jon Swartz

Cupertino, Calif. — Apple last week posted its first-ever \$2 billion quarter, but declining margins put a squeeze on profits.

The company said sales for its first quarter ended Dec. 25, 1992, were \$2 billion, up 7 percent from \$1.86 billion for the same quarter a year ago. But profits fell to \$161.3 million, compared with \$166 million last year.

In a statement, Apple CEO John Sculley said Mac unit sales increased 31 percent and PowerBooks continued to sell briskly.

Price cuts and new product introductions, however, cut gross margins from 43.7 percent a year ago to 40.5 percent.

Analysts said Apple's two-year

strategy of emphasizing market share over gross margins is necessary for it to move into new business markets. "It was a good quarter for Apple. It achieved record sales while only experiencing a slight drop in profits," said John Rossi, an analyst at Robertson Stephens & Co. in San Francisco.

Apple's growth, however, was modest in comparison with results posted last week by Microsoft Corp. and Intel Corp. The software giant reported a 38 percent jump in sales, to \$938 million, and a 35 percent increase in profits, to \$236 million, for its second quarter ended Dec. 31, 1992. Intel's earnings for its fourth quarter more than doubled to \$428.6 million, on a 54 percent increase in sales. □

NetWare

From Page 1

one log-on will obtain access to an entire network.

NetWare 4.0 will add automatic file compression on both server and client machines, along with extensive rules that let the network manager determine when, or if, server volumes should be compressed.

The Mac eventually will play an expanded role in NetWare 4.0 environments, Novell said. For example, for the first time network administrators will be able to configure and manage NetWare servers, which run on Intel-based machines, through the Mac.

But several additional pieces, beyond the initial 4.0 release, will have to fall into place before Macintosh clients become full NetWare citizens.

When it ships, the new NetWare will provide Macs exactly the same level of services available today under Version 3.11. A NetWare Loadable Module (NLM) will be needed to support Mac files on a server. Users will be able to access files stored on a server and print to NetWare queues by opening and selecting these services in their Choosers.

The Apple Open Collaboration Environment (AOCE) extensions for System 7 now reportedly are slated for midyear release. When used with service access modules (SAMs) developed by Novell, AOCE will let Mac users display NetWare's new hierarchical directories in the Finder. AOCE also will support new messaging-based capabilities in applications and let Mac clients use RSA Data Security Inc.'s public key encryption scheme to authenticate themselves on the network.

Novell said it still is considering how to implement its new Personal NetWare strategy for the Mac. Per-

sonal NetWare will allow users on each platform Novell supports, including its own DR DOS, Unix, Microsoft Windows 3.1 and MS-DOS, to access NetWare 4.0 directory and security features within their native interface.

Steven Nelson, Novell director of product marketing, said the company hopes to bundle its directory and messaging SAMs for AOCE with several different mail- and messaging-based applications for the Mac.

"We are working with vendors so users can have three or more choices of electronic-mail packages with Personal NetWare," Nelson said. "Apple's unbundling of some services is a great opportunity. Maybe people will buy Personal NetWare, since [unbundling] opens them to considering more options."

He also said the company is contemplating merging Personal NetWare with the virtual-server technology it acquired when it bought the Data Club file-sharing software from International Business Systems Inc. last year. Data Club displays all shared volumes as a single volume on the Mac desktop, a metaphor Nelson said easily could be extended to give Mac users a unified view of the distributed servers in NetWare.

Novell also will extend its support for remote Mac clients later this year with the addition of the AppleTalk Remote Access (ARA) protocol in its Asynchronous Communications Services NLM, Nelson said. This NLM controls a serial communications card installed in a NetWare server, allowing Macs running ARA client software to dial into NetWare and access file and print services remotely.

Novell Inc. is at 122 East 1700 South, Provo, Utah 84606. Phone (801) 429-7000; fax (801) 638-9273. □

AppleScript

From Page 1

Apple and third-party developers may supply extensions that let users create and edit scripts in forms resembling other programming languages, and third parties are planning to provide their own script-development tools as alternatives to Apple's. Scriptable applications and system extensions add to the vocabulary of AppleScript, adding verbs for Apple events they support and new object types (classes) for their data structures.

Although Apple has been heavily evangelizing Apple events for more than a year, only a few developers have incorporated support for Apple events and the Object Model — a prerequisite to scriptability —

into their applications (see story below). Even fewer have taken the additional step of making their applications recordable, which lets AppleScript write scripts based on user actions in the program.

According to Chuck Piercey, AppleScript product manager, Apple is considering distributing the software in three forms aimed at separate markets:

► **Commercial developers.** AppleScript first will be released in a developers kit that includes full technical documentation and information on how to make applications take full advantage of all aspects of AppleScript. The kit probably will be sold through APDA, Apple's developer-tools marketing group, but the company said it has not yet

decided on distribution channels for the different packages.

► **In-house developers.** A package designed for consultants, programmers and administrators at corporate sites may be offered through retail channels. In addition to sample scripts for applications such as executive information systems, it might include third-party development tools, Piercey said.

► **End users.** Apple eventually may offer an AppleScript package aimed at nonprogramming power users. Instead of script-authoring tools, it may include scripts that perform system-management functions. "Imagine a title like '101 Scripts for Your Macintosh,'" Piercey said. "It wouldn't be in the languages section of a store, but in the utility area." □

Third-party developers lining up with scripting tools, scriptable apps

AppleScript can do only as much as the programs it controls.

Although the list of "scriptable" applications is still short, developers at Macworld Expo showed prototypes of scriptable versions of several programs, including:

► **HyperCard** from Claris Corp. of Santa Clara, Calif. A company representative showed a prototype version of HyperCard that allows users to write scripts in AppleScript as well as the built-in HyperTalk language.

Claris reportedly is considering releasing this version in place of Version 3.0. Development of HyperCard 3.0, which includes more-robust color support, is stalled, according to sources.

► **WordPerfect**, the word processor from WordPerfect Corp. of Orem, Utah.

► **PicturePress 2.5** from Storm Technology Inc. of Mountain View, Calif. The latest version of the photo-compression program can batch-process digitized photos under script control.

► **JMP**, the statistics package from SAS Institute Inc. of Cary, N.C.

► **Dynamics**, an accounting application from Great Plains Software Inc. of Fargo, N.D.

► **StuffIt Deluxe 3.0.4.** Current versions of the compression utility from Aladdin Systems Inc. of Watsonville, Calif., are not only scriptable but also recordable.

Also shown were a number of AppleScript utilities designed to make it easier for users to record, write and debug scripts, including:

► **Scripter.** Main Event of Washington, D.C., demonstrated

an AppleScript editor that includes debugging features, such as a variable watcher and expression evaluator. It lets users build scripts graphically using icons representing commands of scriptable applications. A browser window shows objects and classes.

► **WindowScript with AppleScript.** Heizer Software Inc. of Pleasant Hill, Calif., showed a stand-alone version of its WindowScript interface-builder external for HyperCard. This program lets users script with AppleScript instead of HyperTalk.

► **Iowa.** UserLand Software Inc. of Redwood City, Calif., staged an off-the-floor demonstration of an interface-building tool that lets users create "cards" with elements linked to UserTalk scripts (see story, Page 6). — By Raines Cohen

Pen Mac

From Page 1

Systems Inc. and Calcomp Inc., are likely to offer tablets for PenMac input for as little as \$150.

CIC, a 12-year-old company based in Redwood Shores, Calif., is "cooperating intensively" with Apple, according to Dao. CIC two years ago introduced MacHandwriter, a tablet that allows Japanese users to enter kanji characters and control standard applications with a stylus.

The company also is the developer of PenDOS, a software system that allows pen control of standard DOS applications. PenDOS is licensed by IBM Corp., NCR Corp.,

Samsung Corp. and other makers of Intel-based hardware.

"The Mac will be the best pen operating environment in the world," Dao said. "We think this will change the whole complexion of the Mac market. A lot of people who are now standing on the sidelines not using computers will finally jump in."

The prototype pen-based Mac that Apple has shown selected corporate sites reportedly is a single slab with a combined screen and tablet on the outside. The system uses the current Mac Duo's logic board with new plastics. A custom System Enabler extension adds support for the digitizing tablet via a second

serial port, which normally is inaccessible on the Duos.

Using the Duo design would make a lot of sense for Apple, analysts said. For one thing, the company already is producing the logic board in quantity for the 210 and 230.

In addition, because a Duo-like system could slide into Apple's Duo Dock, it could be controlled with a pen while on the road but use a standard Mac display, mouse and keyboard when in the office. External tablets could provide pen control to users of docked Pen Duos or other desktop Macs.

The company is expected to position its initial pen systems for corporate forms applications.

"Apple doesn't have the luxury of starting from scratch, the way GO [Corp.] did," said a developer currently publishing applications for GO's PenPoint OS. "But it does have the advantage that current Mac applications are, by and large, fairly usable under stylus control with relatively small changes to the system interface definitions."

Developers attending the Apple Worldwide Developers Conference last May got a preview of a pen-specific application, an equation editor that let users reformat and edit equations with pen gestures. Earlier last year, Apple showed a prototype system extension that maps pen gestures to commands in off-the-shelf applications (see MacWEEK, March 9, 1992).

Apple's entry into pen-based systems will be relatively late; both PenPoint and Microsoft Corp.'s Windows for Pen Computing already are attracting hardware and software developers. The market has yet to blossom, however. According to one developer, "Even if a hardware vendor said it had 100 percent market share today, that means it sold a dozen units."

"I think that the pen will be the dominant interface in the next half decade," he said, "but the boom really hasn't started yet."

Apple declined to comment. □

Radius

From Page 1

Macs will connect to the server over a high-bandwidth network, reportedly based on fiber-optic media.

SkyLab is expected to be announced this spring; shipping will depend in part on when Motorola Inc. can deliver the 50-MHz '040 in volume.

The server will come with a new version of Radius' RocketShare system software. Under RocketShare, each Rocket acts as an additional CPU functioning independently of the Mac's processor. This allows for multitasking, such as rendering a 3-D image on one Rocket while simultaneously separating a four-color image on another. The software incorporates distributed-processing technology licensed from Ray Dream Inc. of Mountain View, Calif.

The new version reportedly will enable multiprocessing of system-level tasks, such as saving files, among different Rockets.

Radius reportedly also will offer an application programming interface that will let developers tailor their applications for parallel processing.

In a similar vein, Radius is working with Dig-

ital F/X Inc., also of Mountain View, to develop parallel-processing software that will accelerate Adobe Photoshop 2.5 (see story, Page 32). The software, due this spring, will divide processor-intensive tasks among Rockets and their digital signal processing daughtercards.

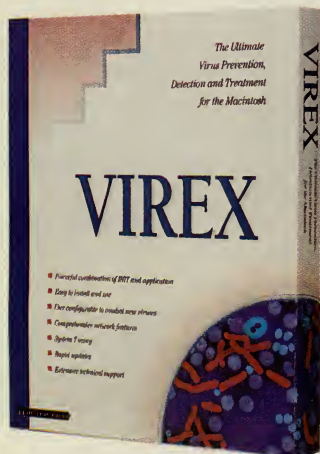
Radius reportedly will not try to compete with Apple's forthcoming server, due later this quarter. The SkyLab server will be aimed at a specialized population: pre-press, graphics and multimedia professionals who need to transfer large files very quickly. The Apple server, in contrast, is aimed at sites with a large number of users doing transaction-intensive tasks.

"Macs make great workstations and lousy servers," said Chris Gulker, director of development at the San Francisco Examiner. "If there were such a product [as the Radius server], we would welcome it; it would fill a huge need for a robust, potent Mac server."

"AppleShare performance degrades quickly with multiple users, so we had to go to a Novell server," Gulker said, "but we would much prefer to use Mac hardware because of the ease of support and use." □

Neil McManus contributed to this story.

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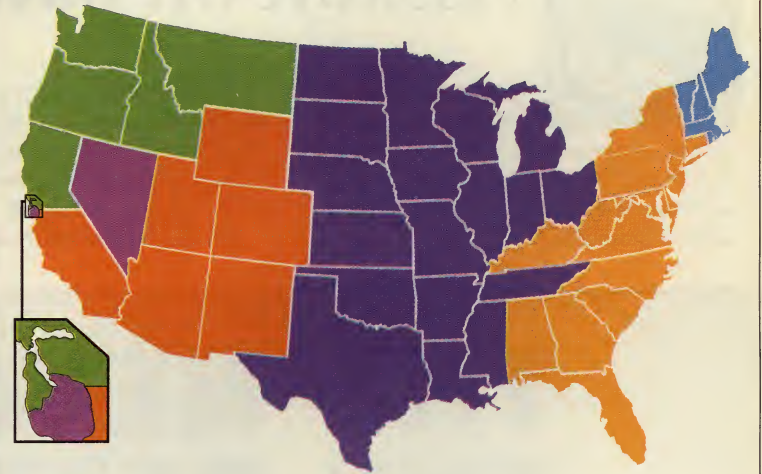
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Looking ahead



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Feb 1	GW Spec. Rpt. Manufacturing tools	Jan 21	Jan 19
Feb 8	Graphics	Jan 28	Jan 26
Feb 15	GA Spec. Rpt. Modems	Feb 4	Feb 2
Feb 22	Presentations	Feb 11	Feb 9
March 1	Mapping software	Feb 18	Feb 16
March 8	GW Spec. Rpt. Database add-ons	Feb 25	Feb 23
March 15	Scanners	March 4	March 2
March 22	UPS hardware	March 11	March 9



Although he had strict orders to devote all his energies to proper preparation for attending the Clinton-Gore inauguration, the Knife was drawn last week to the Oracle, Ariz., home of Biosphere 2.

Technology does have a certain pull, and this multimillion-dollar experiment in oxygen-deprivation research proved the importance of serious, if somewhat ostentatious, scientific endeavors.

For the rest of us living out here in the unen-

closed world, the issues are a little less important than figuring out why all the hummingbirds and bees are now toast. For example, rather than spring for a couple of extra PowerBook batteries, we invest hundreds of dollars in utilities and spend countless person-hours try-

ing to conserve that last volt of precious charge.

If the Knife's sources are correct, the situation will only get more acute next month when Apple releases the PowerBook 165c. They tell the Knife that the new color passive-matrix screen, not surprisingly, will draw more juice than the current monochrome displays.

As a result, Apple will claim a battery-charge life of from one-and-a-half to two hours. In real time, that means a fully charged 165c should be most appropriate for, say, a commuter flight between San Jose and Oakland. And since the 165c screen resolution will be 640 by 400 pixels, you might want to check out how those Persuasion presentations look before taking them on the road.

How green is my battery? The Newton team has been thinking a lot about batteries lately, too. The first Newton, a note taker that is now expected to ship midyear, is running in the lab on four AA alkaline batteries. These batteries last all day if the Newton is asleep. The problem arises when you actually start using it.

The ARM RISC chip inside this Newton is very intelligent, drawing power in direct proportion to the work it is required to do. Unfortunately, handwriting recognition is terrifically processor-intensive, and in tests those AAs last only about 45 minutes.

While these batteries are cheap and readily available, the prospect of several hundred thousand more dead alkaline batteries littering the landscape isn't particularly in sync with Apple's publicly avowed policy of environmental friendliness. Perhaps Apple will develop an alternative portable power source before the Newton note taker ships.

Less wire, more color. Adobe now plans to ship Illustrator 5.0 for the Mac in April. As previously reported, this version will leapfrog Version 4 on that other platform. Users probably will greatly appreciate the new default mode that allows you to work in preview mode rather than the decidedly non-intuitive artwork and template mode — in other words, a lot more like Aldus FreeHand.

Sources say it also will have Adobe Photoshop-style filters you can use to apply special effects to images. These filters also can be sped up with third-party acceleration boards.

Broadcast fax. Since fax is one of the most popular ways to spread the word, it is only a matter of time until fax broadcasting is married to the fax modem.

Recently the Knife and a few high-powered types were treated to a demonstration of precisely that. One of the major fax-modem vendors has hooked up with one of the major telephone long-distance carriers to bring major fax broadcasting to the Mac. You'll be able to send your fax and distribution list to the carrier, which then will deliver your fax to everyone on the list. It's pretty nifty technology, unless you are afflicted with a particularly acute case of FIS (fax-intolerance syndrome). □

Don't let another peaceful transfer of power pass you by without earning your very own MacWEEK mug. If you've got what it takes and you think you can pass muster, contact Mac the Knife at (415) 243-3544, fax (415) 243-3650, MCI (Mac-the-Knife), AppleLink (MacWEEK) and Compu-Serve/ZiffNet/Mac.

THE NEWER THE BETTER

The company that was first with the original PowerBook memory modules is first again with memory for the new generation of 160, 180, 210 and 230 PowerBooks.

Newer Technology was the first to introduce PowerBook memory modules for the 100, 140 and 170. Apple Computer even used Newer's memory in their booth at the COMDEX introduction of the original PowerBooks last year.

Now, we have memory for the new PowerBooks available for shipment in a wide variety of configurations.

All of Newer's PowerBook memory modules come with a five-year warranty, 30-day money back guarantee and toll-free technical support.



POWERBOOK MEMORY FROM 2MB TO 20MB

	New Generation				Original PowerBooks			
	230	210	180	160	170	145	140	100
20MB	+	+						
12MB	+	+						
10MB	+	+	+	+				
8MB	+	+	+	+				
6MB	+	+	+	+	+	+	+	+
4MB	+	+	+	+	+	+	+	+
2MB	+	+	+	+	+	+	+	+

	Plus SE Classic	SE/30	II	IIx	LC LCI	IIcx	IIcd	IIxi	IIfx	Quadra 700	Quadra 900	Quadra 950	Radius Rocket	Classic II	LaserWriter IIfx	LaserWriter IIg	Performa Series
16MB SIMMs	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
8MB SIMMs	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4MB SIMMs	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2MB SIMMs	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
1MB SIMMs	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Overdrive accel.																	
MacSWELL																	
OPTIMA/128																	
Solid-State Disk																	
FPU																	
Video SIMMs																	
DSP Cards																	

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Woody Filley, President, CompuPlan Design Inc.



"WE USE THE RASTEROPS CORRECTPRINT PRIMARILY TO OUTPUT PHOTOGRAPHIC IMAGES. IT'S BEEN PHENOMENAL. IT HAS GREATER RESOLUTION THAN ANYTHING ELSE I'VE SEEN, AND IT'S FULLY POSTSCRIPT COMPATIBLE. I CAN NOW DO THINGS WITH THE CORRECTPRINT THAT ARE EXTRAORDINARILY DIFFICULT AND TIME-CONSUMING BY ANY OTHER MEANS. RECENTLY WE EVEN USED THE PRINTER AS THE OUTPUT DEVICE FOR PRESENTATION BOARDS FOR AN INTERNATIONAL COMPETITION. I'VE BEEN PRINTING COLOR FOR

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The CorrectPrint 300i uses a 33-MHz RISC processor to ensure fast performance. It features support for PostScript®-compatible software. And four ports for use in different network environments, including EtherTalk, AppleTalk, TCP/IP and RS232 protocols. It also has a SCSI connector for font storage to an external hard disk.

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"WE LOOKED AROUND FOR A PRINTER THAT COULD GIVE US PHOTOREALISTIC OUTPUT FOR THE COMPUTER VISUALIZATIONS WE



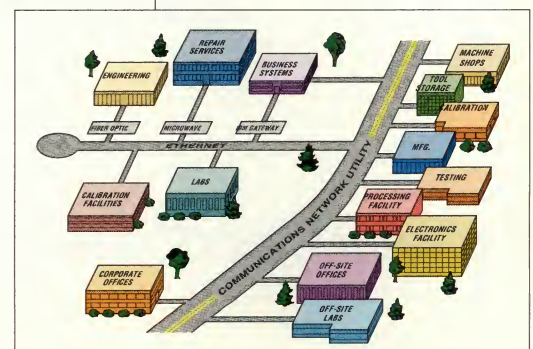
CREATE FOR LAND USE PLANNING. WE DISCOVERED THAT THE RASTEROPS CORRECTPRINT OFFERED THE SAME QUALITY OUTPUT OF OTHER DYE-SUBLIMATION PRINTERS FOR A FRACTION OF THE COST. AND IT'S FAST. THERE'S JUST NO WAY WE COULD MEET DEADLINES WITHOUT IT."

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COMPUPLAN DESIGN INC.



OVER 20 YEARS AND I CAN'T MAKE A PRINT DIRECTLY FROM A 35MM SLIDE USING OPTICAL CHEMICALS THAT LOOKS AS GOOD AS THE OUTPUT FROM THIS PRINTER."

JOHN GRIMES,
HEAD OF GRADUATE
IMAGING PROGRAM,
INSTITUTE OF DESIGN, IIT.



"I WAS PARTICULARLY INTERESTED IN FINDING A DYE-SUBLIMATION PRINTER RATHER THAN A THERMAL TRANSFER PRINTER BECAUSE OF THE SUPERIOR QUALITY OF ITS OUTPUT. WE NEED THAT PHOTOREALISTIC QUALITY FOR PRODUCT REPORTS AND PRESENTATIONS, AND EVERYONE HERE HAS BEEN AMAZED AT WHAT THIS PRINTER CAN DO."

TERRY TUELL,
SENIOR MATERIALS AND
PROCESS SPECIALIST

*Suggested retail price. Current CorrectPrint 300 owners call 1.800.SAY.COLOR for upgrade information.

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